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# M. TULLII CICERONIS
# DE NATURA DEORUM

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*WITH INTRODUCTION AND COMMENTARY*

BY

JOSEPH B. MAYOR, M.A.,

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A NEW COLLATION OF SEVERAL OF THE ENGLISH MSS.

BY J. H. SWAINSON, M.A.
FORMERLY FELLOW OF TRINITY COLLEGE, CAMBRIDGE.

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## PREFATORY NOTE.

In the Preface to my former volume I expressed a hope that the remaining volume might be completed for publication before the end of the year 1881. This hope has been disappointed partly owing to the labour of expanding into a separate work the Sketch of Ancient Philosophy, which formed part of the Introduction to the First Book, and partly from the unforeseen difficulties which I have encountered in the endeavour to explain fully the scientific views of the Ancients, as they are reported by Cicero in his Second Book. The consequent increase in the size of the Commentary has made it necessary to devote a whole volume to this Book, and the publication of the third and last Book must still be deferred to another year.

In the present volume I have been enabled to improve on the *Apparatus Criticus* of my former volume, owing to the kindness of the authorities of Merton College, Oxford, in lending me their valuable Codex (Oxf. o, here denoted simply as Oxf.) written in the 12th century. It is older than any other English MS

of the *De Natura Deorum* with the exception of the fragmentary Harleian no. 2622 (K), and is closely allied with the oldest of all the MSS, the Vienna Codex of the 10th century (V). I have inserted a full collation of the Merton Codex amongst Mr Swainson's Collations of English MSS, showing such a remarkable resemblance between it and V, that the one might easily be supposed to have been copied from the other.

As regards the Commentary I have again to thank Mr H. J. Roby and my brother, the Cambridge Professor of Latin, both for their careful criticisms of my own work and for the notes to which their initials are attached. I have also to thank Prof. W. G. Adams of King's College, and my kind neighbours Dr Woolley and Dr Henry Kane, for allowing me to consult them in regard to physical, astronomical or physiological difficulties. We are greatly in want of good books in English on the history of Ancient Science, especially of Astronomy, which occupies so large a space in this portion of Cicero's treatise. The best known English work on the subject, that by Sir G. C. Lewis, is utterly unmethodical, a mere collection of unconnected essays; while the famous French history of Delambre consists mainly of analyses of particular treatises, and is too technical for ordinary readers, not to mention its occasional carelessness in points of detail, of which an example may be seen in the account of Posidonius cited in my note on § 92 *multis partibus*. Schaubach's *Geschichte der griechischen Astronomie* is more

helpful to a scholar, but unfortunately it only comes down to Eratosthenes; and Rudolf Wolf in his excellent *Geschichte der Astronomie* is only able to allow a limited space to the Astronomy of the Ancients.

While I have been engaged in the study of the scientific writings of the Old World, it has often occurred to me to deplore the neglect into which they have fallen amongst ourselves. The early guesses of Greek science exhibit in a most interesting way the development of the human mind, and they are so closely connected with the philosophy of their time, that it is scarcely possible to form a right estimate of the one without knowing something of the other. Why might not Cambridge, which has now admitted into her final classical school the Art, Philosophy, History and Law of the Ancients, add to these also the Science of the Ancients as a new alternative subject? It would be easy to have examinations in Mathematical and Biological Science in alternate years; and, if in one year students were asked to bring up for examination specified treatises of such authors as Euclid, Archimedes, Geminus and Ptolemy, and in another year portions of Aristotle, Theophrastus, Pliny and Galen, particularly the *De Usu Partium* of the last, I think it would not only call attention to some very excellent and much neglected writings, but also provide a useful link between our literary and our scientific education.

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*A.* The Divine Existence proved (*a*) from the observation of the heavens, (*b*) from general consent, (*c*) from various recorded epiphanies, (*d*) from the fact of divination. §§ 4—12.

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*Ae.* Argument of Chrysippus: (1) the universe shows the operation of superhuman, *i.e.* of divine power; (2) the universe is too beautiful to be the habitation of man alone, it implies a superhuman inhabitant. §§ 16, 17.

*Af.* Man inhabits the lowest region of the universe; the pure ether of the higher regions is fitted for nobler inhabitants. § 17.

*Ag.* Still even man is gifted with reason, and this, like the grosser elements of which his body is composed, must be derived from the universe, as its source. § 18.

*Ah.* The universe being perfect must contain that which is essential to perfection, viz. mind. § 18.

*Ai.* The sympathy which unites all the parts of the universe shows that they are pervaded by one Divine Spirit. §§ 19, 20.

*Ak.* Zeno's argument for the divinity of the universe (and therefore indirectly for the Divine Existence, since the universe exists). (1) What has reason is better than what has not reason, therefore the universe, as the best of things, must possess reason: similarly it may be proved to be wise, blessed, eternal, and therefore God. (2) The universe must be sentient because it has sentient parts. (3) It must be rational because it gives birth to what is rational. §§ 20—22.

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parts; the universe alone is absolutely complete; therefore the absolute Ideal can only be found in the universe. § 38.

*An.* The heavenly bodies also are divine: (1) because they are composed of the purest ether corresponding to our vital heat. §§ 39—41. (2) Since each of the lower elements, earth, water, air, has its living occupant, it is probable that it is so too with the highest element, ether: and since the nature of the animal depends upon the element in which it lives, it is probable that those which live in the purest and most active element will possess the keenest and purest intelligence. §§ 42, 43. (3) The intelligence of the stars is shown by their orderly movements, which proceed not from nature or chance, but from their own free-will. §§ 43, 44.

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*Bc.* The divinity of nature shown in its creative and artistic, as well as in its providential activity. §§ 57, 58.

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*Be.* One divine Being is to be worshipped under these various forms in holiness and purity, avoiding all superstition. §§ 71, 72.

*C. Providential government of the universe.* §§ 73—153.

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*Cb.* Providential government inferred from a consideration of the Divine nature: (1) It is a part of our idea of God that he should be active, and active in the noblest way, and consequently in regard to the noblest object, i.e. the universe: (2) if he is not so, then he must be inferior to some other power which rules the universe; but such inferiority contradicts the very definition of Deity; therefore he cannot be subject to any other power; therefore he must rule the universe himself: (3) the Gods form a community, and it is natural to suppose that they possess those same social virtues, which we believe that we have derived from them; but that they possess them in higher perfection and manifest them on a vaster scale in the great city of the universe: (4) when we confess the benevolent wisdom displayed in the universe and the heavenly bodies and agree that these are divine, we confess that all things are ordered by divine Providence. §§ 76—80.

*Cc.* Providential government inferred from the consideration of the universe itself as embodying an intelligent principle first imparted to it by a creative energy. (1) Meaning of the term 'nature.' (2) The universe is a vast organism permeated and controlled by an intelligent nature, all the parts of which co-operate for the good of the whole. (3) The fact that all the parts, of which the universe is composed, are combined as is best for beauty and utility, can only be explained as the result of intelligence. Nature exhibits a skill infinitely beyond the reach of art, but even art testifies to the existence and intelligence of the artist. If the orrery attests the wisdom of Archimedes, much more must the movements of the heavenly bodies attest the wisdom of the Creator. (4) The absurdity of attempting to explain the universe as the result of the fortuitous concourse of atoms. (5) Custom blinds men, or they could not fail to acknowledge that the wonders of nature are the works of God. §§ 81—98.

*Cd.* A detailed review of the wonders of nature. (1) The earth and other elements. §§ 98—101. (2) The sun, moon, and planets. §§ 102, 103. (3) The constellations. §§ 104—115. (4) The several parts of the universe are held together by a strong centripetal force, which is the cause of warmth and light to all things, and out of which all are developed anew in the cyclical regeneration. §§ 115—118. (5) Thus there is a harmony and sympathy between the remotest parts of the universe, and our earth is benefited by a stellar

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ζ. In the capacity for action through the mechanism of the hand. §§ 150—152.

η. In the capacity for meditation and worship. § 153.

*D. Providential care for man.* §§ 154—167.

*Da.* Whatever tends to man's good was designed for him. § 154.

*Db.* The universe exists for the sake of its rational inhabitants, viz. Gods and men. § 155.

*Dc.* We may see this in the heavenly bodies, which, besides their general use for the preservation of the universe, afford also a beautiful and instructive spectacle to man, and man alone of animals. § 155.

*Dd.* The vegetable kingdom exists for his sake, as plainly as the harp for the sake of the harpist; many of its products can only be utilized by his labour and skill, and only appreciated by his finer sense. §§ 156—158.

*De.* Even the animals are created for him, to clothe him, guard

him, feed him, carry him, draw for him, exercise his strength and courage. §§ 158—161.

*Df.* So the inorganic world needs the labour of man to provide what is useful to him and him alone. §§ 161, 162.

*Dg.* Divination is the exclusive possession of man. §§ 162, 163.

*Dh.* Cumulative force of these proofs. § 163.

*Di.* The care of the Gods extends to individual men. From them each man receives wisdom and virtue. §§ 164—167.

*Dk.* External misfortune is no sign of the Divine wrath or neglect: to the philosopher all things turn out for good. § 167.

Conclusion. § 168.

## ON THE SOURCES OF THE SECOND BOOK OF THE DE NATURA DEORUM.

In discussing the sources of the First Book we have seen what was Cicero's method in the composition of his philosophical treatises. They are adaptations from Greek originals; and, as the comparison of the περὶ εὐσεβείας of Philodemus has shown us, Cicero borrows not only the topics and arguments, but even the quotations of the author whom he follows. We need not therefore suppose with Teuffel (*Hist. of Rom. Lit.* § 173. 10, ed. 1) that, because Cicero quotes from Aristotle, Zeno, Cleanthes, and Chrysippus, in the course of his Second Book, he had himself studied the writings of these philosophers with a view to its composition. It is much more probable that he is following in the steps of some later writer or writers, and using the quotations which he found there ready to hand. If we ask who is the writer whom Cicero is most likely to have followed, the answer is undoubtedly—Posidonius, who is referred to in I 123 as *familiaris omnium nostrum*, and whose treatise 'on the Nature of the Gods,' there cited, has been shown to be the probable authority for the criticism of the Epicurean system, contained in the latter half of Bk. I (cf. *Introduction*, vol. I, p. lii foll.). This supposition is confirmed by the fact that the treatises which immediately preceded and followed the present, viz. the *Tusculan Disputations* and the *De Divinatione* (not to mention other writings of Cicero) are in great part taken from Posidonius; see, for the former, Heine *De font. Tusc. Disp.* Weimar 1863, P. Corssen *De Posidonio Rhodio,*

Bonn 1878, and, for the latter, Schiche *De font. lib. de Divinatione*, Jena 1875, Hartfelder *Die Quellen v. Ciceros 'de Divinatione,'* Freiburg 1878. But the strongest argument for the Posidonian authorship of the original which Cicero here follows, is to be found in an examination of the book itself, in the agreement between the opinions there expressed, and opinions elsewhere attributed to Posidonius, sometimes in opposition to, or in contra-distinction from, other writers of his school.

The main points of distinction between Posidonius and the Stoics in general appear to have been (1) his easy and flowing style and general literary tastes, (2) his wide scientific interest, (3) his admiration for Plato and Aristotle, and his modification of the older Stoic doctrines so as to bring them more into accordance with the Academic and Peripatetic doctrines. As to (1) we are told by Strabo III 2, § 9 *Ποσειδώνιος· οὐκ ἀπέχεται τῆς συνήθους ῥητορείας, ἀλλὰ συνενθουσιᾷ ταῖς ὑπερβολαῖς*, which agrees with what we read in § 20 of our book, *haec cum uberius disputantur et fusius, ut mihi est in animo facere, facilius effugiunt Academicorum calumniam*; so Galen tells us (*Hipp. et Plat.* p. 399 K.) that Posidonius was in the habit of relieving his philosophical discussions with illustrations from the poets and historians, which again is quite in accordance with the speech of Balbus; compare, for historical illustration, §§ 6—11 on divination, § 61 on apotheosis, § 69 on the office of Lucina, § 165 on particular providences; for poetical quotations compare § 4 and § 65 from Ennius on the divinity of the heavens; from Euripides on the same subject § 65; from Attius, illustrating the theistic argument from the impression produced by the sight of the first ship § 89; from Aratus describing the constellations §§ 104—114; from Aratus again on the Golden Age § 159. We need not suppose that all these exactly correspond to quotations in the original. Cicero has no doubt given at times examples from Roman history instead of Greek history; and Posidonius had not Cicero's temptation to tax the attention of his readers with long quotations from Aratus. It may be said however that, whatever his authority, Cicero's natural taste would have led him to rhetorical treatment of his subject: and this is certainly true. On the other hand, it must be remembered that community of taste would naturally lead him to select Posidonius in preference to other Stoics. I do not however lay so much stress on this point as on those which I have next to deal with.

It is evident that the subject of Natural Theology is one which requires for its treatment a wide acquaintance with science; and in point of fact we find this book of Cicero's dealing more or less with almost all the sciences known to the ancients, from the most general physical speculations down to particular theories of geometry and astronomy and the various sciences of observation, such as geography, botany, zoology, anatomy, anthropology, and sociology. Now we know that Posidonius was generally regarded as the most learned and most scientific of all the Stoic philosophers; thus Galen, who quotes him largely on questions relating to human physiology and psychology, calls him ὁ ἐπιστημονικώτατος τῶν Στωικῶν διὰ τὸ γεγυμνάσθαι κατὰ γεωμετρίαν (*Hipp. et Plat.* p. 652 K.); Cleomedes confesses that he compiled his treatise on Astronomy principally from his writings (Cleom. II 7 τὰ πολλὰ τῶν εἰρημένων ἐκ τῶν τοῦ Ποσειδωνίου εἴληπται), and Strabo, who often cites him in his Geography, speaks of him as ἀνὴρ τῶν καθ' ἡμᾶς φιλοσόφων πολυμαθέστατος (Str. XVI 2 § 10). I shall proceed to show in detail that, as far as we are able to test the matter, there is a remarkable agreement between the scientific views of Posidonius and those put forward in this book. First as to Astronomy, which occupies the most prominent place in the argument, Cicero refers expressly to the orrery of Posidonius (§ 88), as illustrating and justifying the process by which we infer the existence of a superintending mind from the observation of the movements of the heavenly bodies. What Cicero says of the constitution of the sun and planets, and of their being nourished by terrestrial vapours, is in accordance with what we are told of the views of Posidonius (see §§ 39, 40, 118 with the notes). When Cicero tells us that the sun is many times larger than the earth (§ 92), that the moon is rather more than half the size of the earth (§ 103), that Venus and Mercury are between the earth and the sun (§ 52), all this agrees with what we read in Cleomedes, sometimes with the express addition that he is quoting from Posidonius, while it is inconsistent with the views of the older Stoics. The same agreement is to be found in regard to the properties of the sphere and its peculiar mobility (§ 48), the stability of the universe and the question as to the Cyclic Conflagration, on which Posidonius appears to have expressed himself as doubtfully as Cicero (§§ 85, 115, 118). Lunar influence again (§§ 19, 50, 119) was a favourite study of Posidonius. He was the first to establish the true theory of the tides (see nn. on §§ 19, 132), the inquiry into which was stigmatized

by the elder Stoics as frivolous and unworthy the attention of a philosopher. Like Cicero, he contrasted the denser atmosphere immediately surrounding the earth with the fine ether, which filled the upper regions of the universe (§ 17), he described the inhabited world as an island surrounded by the ocean (§ 165), and, as we learn from Seneca, he paid particular attention to the phenomena of volcanos (§ 96). Both Strabo and Galen refer to him as the chief writer on the influence of the climate of a country upon the mental and moral constitution of its inhabitants (§§ 17, 42); and Galen tells us he laid great stress on the use of diet for controlling the irrational elements of the mind (§ 42). For here too Posidonius differed from the older Stoics: he recognized an irrational element in man's nature, softening down the broad demarcation drawn by Chrysippus between the different kingdoms of nature, and adopted Aristotle's view, that each higher function of the soul involves the lower, so that all the functions are found combined with rationality in man (§§ 33, 34, 85); while certain plants make an approach towards animal life (§ 120), and animals towards human life (§ 29). The rational soul is not only an emanation from Deity (§ 17), but it is itself eternal, not, as the older Stoics believed, doomed to perish in the Cyclical Conflagration (§ 62). On the origin of civilization Cicero's view (§§ 148, 150) is in complete accordance with what Seneca tells us of Posidonius (*Ep.* 92). Both rationalize the old belief in a Golden Age (§ 159), and attribute the early inventions of mankind to philosophic lawgivers and kings. Even Cicero's patriotic eulogy of Roman piety is not without a parallel in Posidonius (§ 8).

I go on now to the 3rd point mentioned above, the admiration shown for the writings of Plato and Aristotle. In my note on § 32 I have pointed out that Cicero's *deus philosophorum*, applied to the former, may be matched from the fragments of Posidonius, while it is quite opposed to the language of the older Stoics. So Aristotle is praised in § 95 and § 125; and the notes on §§ 13, 17, 26 (spontaneous generation), 33 (scale of existence), 34 (union of higher and lower functions in man), 36 (movement of all things towards perfection), 42 (each element has inhabitants corresponding to it), 43 (nature, chance and freewill), 44 (voluntary movement of stars), 51 (the Great Year), 56 (opposition of sublunary and superlunary regions), the fine passage about the cave-dwellers quoted from Aristotle's *de philosophia* § 95, the whole section on zoology §§ 121—

129, much of the section on anatomy §§ 134—146, show how largely the author whom Cicero follows was influenced by Aristotle. No doubt this is true generally of the Stoic school, but the views put forward in some of the above-cited passages are opposed to those of the older Stoics, and may with much probability be attributed to Posidonius, of whom Strabo says (II 3 § 8) πολὺ γάρ ἐστι τὸ αἰτιολογικὸν παρ' αὐτῷ καὶ τὸ ἀριστοτελίζον.

The next point for consideration is whether we have any grounds for supposing that the treatise of Posidonius, quoted in I 123, would deal with the same topics as Cicero's similarly named work. Schwencke (*Jahrb. f. class. Philol.* 1877 pp. 129—140) points out that in general the Stoics treated the question of the Existence and Nature of the Gods separately from that of the Providential Government of the World. Thus the περὶ προνοίας of Chrysippus is a distinct work from his περὶ θεῶν, and Diogenes Laertius mentions them in different parts of his 7th book, the former in c. 138, the latter in c. 148. But of Posidonius, and of him alone, we are told that he treated of both subjects under the title of περὶ θεῶν (Diog. l.c.). His treatise consisted of five books, in the 1st of which he maintained the divinity of the heaven and the universe, in the 3rd (so Cobet, not 13th as in Hübner's ed.) argued in favour of the providential government of the world, while in the 5th he confuted the Epicurean doctrine (*N. D.* I 123). It seems not improbable therefore that, as Schwencke suggests, the first four books of Posidonius may have corresponded with the quadruple division with which Cicero commences his second book.

One other slight indication of the author may be found in § 165, where Rhodes is put on a level with Rome, Athens and Sparta, see Mr Roby's note on the passage. As Panaetius was born at Rhodes, while Posidonius resided there for the greater part of his life, this might at first sight appear to be equally in favour of either authorship, but there can be little doubt that such an allusion is more natural in the mouth of one who, like Posidonius, presided over the University of Rhodes and took a leading part in its politics, than of one who spent the active years of his life in Athens and in Rome and never returned to his native land after he had once left it (Cic. *Tusc.* V 107).

I think that the various considerations adduced above leave little doubt as to the Posidonian authorship of Cicero's treatise, but there are some facts which appear to militate against this and which have

induced Hirzel (*Untersuchungen zu Cicero's philosophischen Schriften* I 191—244) to assign a number of different authorities for the different parts of Cicero's book. In the first place Cicero writes to Atticus (*Att.* XIII 8) in June 45 B.C., the year before the *N. D.* appeared, asking for an epitome of the writings of Caelius by Brutus, and for Panaetius περὶ προνοίας. Must we not suppose that he asked for them with the intention of using them for the book which he was then preparing, especially as we find that he quotes from Caelius in § 8, and as he chose Panaetius as his authority in the first two books of the *De Officiis?* Much that has been said in favour of the claims of Posidonius is also applicable to Panaetius. He wrote a good style, was an admirer of Plato and Aristotle, and departed on many points from the rigid dogmatism of the older Stoics. We are not told however that he paid much attention to science, and there are certainly parts of this second book which could not possibly have been derived from him. For instance Divination is defended in §§ 7—12 and again in 162, 163, but we know from Cicero himself *Div.* I 12, II 88, 97, as well as from other writers (see Zeller IV p. 567), that Panaetius was a disbeliever in divination; Schiche and Hartfelder even suppose his treatise περὶ προνοίας to have been the authority used by Cicero for the second book of his *de divinatione*, in which the negative side is supported. Again the immortality, or rather the eternity of the soul is maintained in § 62, but, as we see from the *Tusculans* (I 42, 78), this was entirely rejected by Panaetius. Also the manner in which his opinion in regard to the Cyclic Conflagration is referred to is inconsistent with the idea that Cicero could have been there copying from him. Still there is the fact that Cicero was studying his περὶ προνοίας at the time when he was engaged on his own book on the subject. But so also he was studying Phaedrus περὶ θεῶν, when writing about the Epicurean theology, and yet we have seen reason to believe that his authority for that portion of his treatise was not Phaedrus, but Zeno, see vol. I p. XLIV foll. If Cicero used Panaetius for his treatise on Divination, which is merely a sequel to the *N. D.*, this would be quite sufficient explanation for his request to Atticus, but he may also have thought of getting further material either for his exposition or for his criticism of the Stoic doctrine on Providence. Hirzel however is of opinion that the second book shows signs of having been compiled from different sources, and that while one part is taken from Posidonius, another part is from Apollo-

dorus and a 3rd from Panaetius. In order to see what grounds there are for this opinion we must examine more minutely the structure of the book. It is divided, as shown in the analysis, into four parts (1) the proof of the Divine Existence, (2) the nature of the Gods, (3) Providential government of the world, (4) Providential care for man. But the slightest examination is sufficient to show that these divisions overlap, that much for instance of the 1st section, e.g. Zeno's argument for the divinity of the universe (§§ 20—22) and the argument for the divinity of the stars (§§ 39—44), would more naturally come under the 2nd, and much of the 3rd, e.g. §§ 133—153 might just as well come under the 4th. Moreover there are actual repetitions, as on the divinity of the stars (§§ 54, 55 compared with §§ 39—44); and we seem to have a double beginning for the 4th section (in § 133 *facilius intellegetur a dis immortalibus esse provisum* &c. and 153 *restat ut doceam omnia hominum causa facta esse*), which has misled, as I think, both Hirzel and Schwencke to commence the 4th section at § 133. It appears to me however that these difficulties arise mainly from want of care, on the part of Cicero, in marking the transitions from one part of his argument to another, and particularly, as Schwencke remarks, where he has to supply short connecting links in place of omissions. It is possible also that Posidonius may have given short summaries of the preceding argument at the commencement of each book, which Cicero may have mixed up with the substance of the book itself. The general framework, as seen in the analysis, seems to me to hold well together, if (1) we allow the use of the indirect argument for the Divine Existence in the latter half of the 1st section, (we have many instances of this indirect argument in the 9th book of Sextus Empiricus, which is evidently closely related to our own, cf. n. on A k § 20); (2) if we remember that the question proposed for examination in the 2nd section is not 'who are Gods', but 'of what nature the Gods are', (*quales sint corpore animo vita*, as we read I 65); and (3) if we admit that in the nature and constitution of man we may see a proof of a creative intelligence (which would naturally fall under the 3rd section) apart from the question whether the welfare of man is the chief end designed in the creation and government of the world (which is the subject of the 4th section). The particular points in which Hirzel endeavours to show a disagreement between Cicero and Posidonius are, I think, all cleared up by Schwencke, who has also no

difficulty in refuting the rather wild suggestion that the 2nd section is derived from Apollodorus, as being the chief writer on the interpretation of myths.

My notes show a distinct connexion between this book of the *N. D.* and the 9th book of Sextus Empiricus on the one hand[1] and the treatises *de Providentia* of Philo and Theodoret on the other. I am not aware whether there has been any careful investigation of the sources of these books, but I should conclude that they were, in part at least, taken either from Posidonius directly or from writers who had copied from him.

[1] Compare particularly the quotation from Xenophon in § 18 with Sext. IX 92, that from Aristotle § 95 with Sextus IX 20, the comparison of the movements of the heavenly bodies to the movements of an army or a ship in §§ 85, 87, 89, with Sext. IX 26, 78; and the reference to the orrery in § 88 with Sextus IX 114.

## M. TULLII CICERONIS

# DE NATURA DEORUM.

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## LIBER SECUNDUS.

I. QUAE cum Cotta dixisset, tum Velleius, Ne ego, inquit, 1
incautus, qui cum Academico et eodem rhetore congredi conatus sim! Nam neque indisertum Academicum pertimuissem nec sine ista philosophia rhetorem quamvis eloquentem; neque enim flumine conturbor inanium verborum nec subtilitate sententiarum, si orationis est siccitas. Tu autem, Cotta, utraque re valuisti; corona tibi et judices defuerunt. Sed ad ista alias; nunc Lucilium, si ipsi commodum est, audiamus. Tum Balbus: 2
Eundem equidem mallem audire Cottam, dum, qua eloquentia falsos deos sustulit, eadem veros inducat. Est enim et philosophi et pontificis et Cottae de dis immortalibus habere non errantem et vagam, ut Academici, sed, ut nostri, stabilem certamque sententiam. Nam contra Epicurum satis superque dictum est; sed aveo audire, tu ipse, Cotta, quid sentias. An, inquit, oblitus es, quid initio dixerim, facilius me, talibus praesertim de rebus, quid non sentirem, quam quid sentirem, posse dicere? Quodsi haberem aliquid, quod liqueret, tamen te vi- 3
cissim audire vellem, cum ipse tam multa dixissem.

3 *sim* [X] **BH** Oxf. GU, *sum* Asc. **LMN** +. 9 *mallem* MSS generally, *malem* A Red. U**O**, *malim* Heind. Forch. Mu. cf. Sch. *Opusc.* III p. 324. 14 *aveo* edd., *abeo* AB[1], *ab eo* **O**, *habeo* B[2]CE Mus. Oxf. Asc. +, 15 *quid initio dixerim* [ABE] G Red. **BO**, *quod in initio dixerim* C, *quod initio dixerim* **CM** Asc. +, *quod initio dixeram* Gesner.

Tum Balbus: Geram tibi morem et agam quam brevissime potero; etenim convictis Epicuri erroribus longa de mea disputatione detracta oratio est. Omnino dividunt nostri totam istam de dis immortalibus quaestionem in partes quattuor. Primum docent esse deos, deinde quales sint, tum mundum ab iis administrari, postremo consulere eos rebus humanis. Nos autem hoc sermone, quae priora duo sunt, sumamus; tertium et quartum, quia majora sunt, puto esse in aliud tempus differenda. Minime vero, inquit Cotta; nam et otiosi sumus et iis de rebus agimus, quae sunt etiam negotiis anteponendae.

4 II. Tum Lucilius, Ne egere quidem videtur, inquit, oratione prima pars. Quid enim potest esse tam apertum tamque perspicuum, cum caelum suspeximus caelestiaque contemplati sumus, quam esse aliquod numen praestantissimae mentis, quo haec regantur? Quod ni ita esset, qui potuisset assensu omnium dicere Ennius:

Aspice hoc sublime candens, quem invocant omnes Jovem,

illum vero et Jovem et dominatorem rerum et omnia nutu regentem et, ut idem Ennius,

patrem divumque hominumque

et praesentem ac praepotentem deum? Quod qui dubitet, haud sane intellego, cur non idem, sol sit an nullus sit, dubitare
5 possit. *Qui* enim est hoc illo evidentius? Quod nisi cognitum comprehensumque animis haberemus, non tam stabilis opinio permaneret nec confirmaretur diuturnitate temporis nec una cum saeclis aetatibusque hominum invetera*scere* potuisset. Etenim videmus ceteras opiniones fictas atque vanas diuturnitate extabuisse. Quis enim Hippocentaurum fuisse aut Chimaeram putat? quaeve anus tam excors inveniri potest, quae illa, quae quondam credebantur apud inferos portenta, extimescat?

5 *ab iis* L, *ab his* MSS generally. 9 *et iis* HL Asc., *et his* MSS generally. 10 *sunt*, 'malim *sint*' Mu. cf. I 48. *anteponendae* [BE], *anteponenda* AC Oxf. Mus. 14 *quo*, 'malim *a quo*' Mu. but cf. Comm. and III 10 where the words are repeated. 17 *sublime* MSS, *sublimen* Or. Ba. Sch. see Comm. *invocant*, *vocant* ap. Fest. et Prob. 18 *nutu* GV Asc., *motu* MSS generally. 23 *qui* edd. after Lamb and Dav., *quid* MSS, cf. Madv. *Opusc. Ac.* II p. 265 n., Sch. *Op.* III 325. 26 *inveterascere* Forchhammer, *inveterare* MSS generally Allen Klotz, *inveterari* G Moser's La. Heind. Or. Ba. Sch. Mu. see Comm.

Opinionis enim commenta delet dies, naturae judicia confirmat.
Itaque et in nostro populo et in ceteris deorum cultus re-
ligionumque sanctitates exsistunt in dies majores atque meliores.
Idque evenit non temere nec casu, sed quod et praesentes saepe 6
di vim suam declarant, ut et apud Regillum bello Latinorum,
cum A. Postumius dictator cum Octavio Mamilio Tusculano
proelio dimicaret, in nostra acie Castor et Pollux ex equis pu-
gnare visi sunt, et recentiore memoria idem Tyndaridae Persem
victum nuntiaverunt. P. enim Vatinius, avus hujus adulescen-
tis, cum e praefectura Reatina Romam venienti noctu duo juve-
nes cum equis albis dixissent regem Persem illo die captum, *cum*
senatui nuntiavisset, primo, quasi temere de re publica locutus,
in carcerem conjectus est, post a Paulo litteris allatis cum idem
dies constitisset, et agro a senatu et vacatione donatus est.
Atque etiam cum ad fluvium Sagram Crotoniatas Locri maximo
proelio devicissent, eo ipso die auditam esse eam pugnam ludis
Olympiae memoriae proditum est. Saepe Faunorum voces ex-
auditae, saepe visae formae deorum quemvis *non aut* hebetem
aut impium deos praesentes esse confiteri coëgerunt. III. Prae- 7
dictiones vero et praesensiones rerum futurarum quid aliud
declarant nisi hominibus ea ostendi, monstrari, portendi, prae-
dici? ex quo illa ostenta, monstra, portenta, prodigia
dicuntur. Quodsi ea ficta credimus licentia fabularum, Mopsum,
Tiresiam, Amphiaraum, Calchantem, Helenum,—quos tamen
augures ne ipsae quidem fabulae ascivissent, si res omnino repu-
diarent,—ne domesticis quidem exemplis docti numen deorum

1 *opinionis* CE, *opiniones* **B**, *opinione* A (doubtful) B[1]**H**, *opinionum* B[2] Oxf. Υ Asc. + Sch. 4 *et* X +, *etiam* U +, om. Oxf. **MNCR** Asc. Allen. *praesentes* AGH, *praesentiam* B (in ras.) CE Oxf. Mus. generally Allen. 5 *di vim suam* A (in ras.) four of Moser, *divi vim suam* G, *dii vim* **H**, *divi suam* BCEB Oxf., *divi sui* **MRV** Asc. 9 *Vatinius* edd., *vatienus* MSS generally, but in III 13 *vatinio*. 11 *cum senatui nuntiavisset* Vahlen (see Comm.), *senatui nuntiavi set* **A**, *sen. nunciavissent* (by corr. *-visset*) B, *sen. nuntiasset* **CBLO**, *sen. nunciavisset* **EH**, *senatuique nuntiavisset* G Heind. Ba., *senatui nuntiavit et* Oxf. **ΥM** Asc. Or. Sch. Mu. 18 *non aut* edd. after Dav., *aut non* X Oxf. +, *non* **GHLN**. 19 *coegerunt*, *coegerint* Allen. 21 *hominibus*, *divinitus* conj. Sch., *divinitus hominibus* Brieger. *ea* M of Moser edd. after Sch.. *ea quae sint* **XBMO** Oxf., *ea quae sunt* **GHN**, *ea quae sunt futura* **C** Reg. of Dav. Heind. *praedici*, *prodici* conj. Swainson. 25 *repudiarent* **ABEBHMO** Oxf. Allen, *repudiaret* [C] **N** Red. edd., *repudiaretur* GU.

comprobabimus? Nihil nos P. Claudii bello Punico primo temeritas movebit? qui etiam per jocum deos irridens, cum cavea liberati pulli non pascerentur, mergi eos in aquam jussit, ut biberent, quoniam esse nollent. Qui risus classe devicta multas ipsi lacrimas, magnam populo Romano cladem attulit. Quid? collega ejus Junius eodem bello nonne tempestate classem amisit, cum auspiciis non paruisset? Itaque Claudius a populo
8 condemnatus est, Junius necem sibi ipse conscivit. C. Flaminium Caelius religione neglecta cecidisse apud Trasimenum scribit cum magno rei publicae vulnere. Quorum exitio intellegi potest eorum imperiis rem publicam amplificatam, qui religionibus paruissent. Et si conferre volumus nostra cum externis, ceteris rebus aut pares aut etiam inferiores reperiemur, religione,
9 id est cultu deorum, multo superiores. An Atti Navii lituus ille, quo ad investigandum suem regiones vineae terminavit, contemnendus est? Crederem, nisi ejus augurio rex Hostilius maxima bella gessisset. Sed, neglegentia nobilitatis augurii disciplina omissa, veritas auspiciorum spreta est, species tantum retenta. Itaque maximae rei publicae partes, in his bella, quibus rei publicae salus continetur, nullis auspiciis administrantur: nulla peremnia servantur, nulla ex acuminibus, nulla, *cum* viri vocantur, ex quo in procinctu testamenta perierunt. Tum enim
10 bella gerere nostri duces incipiunt, cum auspicia posuerunt. At vero apud majores tanta religionis vis fuit, ut quidam imperatores etiam se ipsos dis immortalibus capite velato verbis certis pro re publica devoverent. Multa ex Sibyllinis vaticinationibus, multa ex haruspicum responsis commemorare possum, quibus ea confirmentur, quae dubia nemini debent esse. IV. Atqui et

1 *comprobabimus* B¹CB, *comprobavimus* AB²EU Oxf. Mus. *Claudii* B²O, *Claudi* B¹, *Clodi* AEB Oxf., *Dodi* C. 4 *nollent*, *nolent* A (cf. *malem* § 1). 5 *populo Romano* edd., *p. r.* ABCBHO Oxf., *rei publicae* E El. N, *r. p.* V Asc. 9 *Caelius* [E], *coelius* ABC Mu. *Trasimenum* V Asc., *transumen* ABCB, *Trasumenum* Or. Ba. Sch. Mu. 15 *investigandum* MSS generally, *investigandam* Red. C Heind. Swainson. *regiones vineae* U Asc., *reliones vin.* A¹, *religiones vin.* A² BC Oxf. BC, *religionis vin.* E, *in regiones vineam* LNOT Red. 19 *maximae* [E], *maxime* ABC. 21 *peremnia* [B], *perennia* ACE. *nulla cum* edd. after Sch., *nulla* V, *nulli* MSS generally. 25 *immortalibus* MSS generally, *mortalibus* A. 26 *devoverent* MSS generally, *devoverint* U, *denoverint* I of Moser.

nostrorum augurum et Etruscorum haruspicum disciplinam *in*
P. Scipione C. Figulo consulibus res ipsa probavit; quos cum
Ti. Gracchus consul iterum crearet, primus rogator, ut eos rettu-
lit, ibidem est repente mortuus. Gracchus cum comitia nihilo
minus peregisset remque illam in religionem populo venisse
sentiret, ad senatum rettulit. Senatus, quos ad soleret, referen-
dum censuit. Haruspices introducti responderunt non fuisse
justum comitiorum rogatorem. Tum Gracchus, ut e patre au- 11
diebam, incensus ira: 'Itane vero? ego non justus, qui et
consul rogavi et augur et auspicato? an vos Tusci ac
barbari auspiciorum populi Romani jus tenetis et
interpretes esse comitiorum potestis?' Itaque tum illos
exire jussit. Post autem e provincia litteras ad collegium misit
se, cum legeret libros, recordatum esse vitio sibi tabernaculum
captum fuisse hortos Scipionis, quod, cum pomerium postea in-
trasset habendi senatus causa, in redeundo, cum idem pomerium
transiret, auspicari esset oblitus; itaque vitio creatos consules
esse. Augures rem ad senatum; senatus, ut abdicarent con-
sules; abdicaverunt. Quae quaerimus exempla majora? Vir
sapientissimus atque haud sciam an omnium praestantissimus
peccatum suum, quod celari posset, confiteri maluit quam haerere
in re publica religionem; consules summum imperium statim
deponere quam id tenere punctum temporis contra religionem.
[Magna augurum auctoritas; quid? haruspicum ars nonne divina?] 12
Haec *et* innumerabilia ex eodem genere qui videat, nonne cogatur
confiteri deos esse? Quorum enim interpretes sunt, eos ipsos
esse certe necesse est; deorum autem interpretes sunt; deos
igitur esse fateamur. At fortasse non omnia eveniunt, quae
praedicta sunt. Ne aegri quidem quia non omnes convalescunt,

1 *Etruscorum* A¹B¹, *etruscorum et* A²B²CEB+. *in* Ed. after Bouh. see Comm. 3 *consul* edd. after Manut., *cos* MB², *quos* AB¹CBH, *eos* Oxf. V Asc., om. ELNCO. *crearet* B¹ M of Moser, *recrearet* AB²CE Mus. Oxf. 6 *quos ad soleret* MSS generally, *quos adsoleret* Oxf. V, *ad quos soleret* C Asc. 15 *hortos Scipionis* X+, *in hortos Scip.* Asc. V, *in horto Scip.* C, *aruspectionis* G Manut. Allen, *in hortis Scip.* Lamb., *ad hortos Scip.* Sch., in brackets Or. Ba. 17 *transiret* MSS generally, *transisset* CB. *consules* [B] Asc., *quos* ACBH, *om.* EC. 19 *abdicaverunt Quae* [X], *abdicaveruntque* Oxf. B+. 20 *sciam* X, *scio* M Asc. 24 *magna—divina* see Comm. 25 *et* G edd. after Heind., om. X Mus. 29 *quia non*, om. Bake inserting *num* before *idcirco*.

idcirco ars nulla medicinae est. Signa ostenduntur a dis rerum futurarum. In his si qui erraverunt, non deorum natura, sed hominum conjectura peccavit. Itaque inter omnes omnium gentium summa constat; omnibus enim innatum est et in animo
13 quasi insculptum esse deos. V. Quales sint, varium est; esse nemo negat.

Cleanthes quidem noster quattuor de causis dixit in animis hominum informatas deorum esse notiones. Primam posuit eam, de qua modo dixi, quae orta esset ex praesensione rerum futurarum; alteram, quam ceperimus ex magnitudine commodorum, quae percipiuntur caeli temperatione, fecunditate ter-
14 rarum aliarumque commoditatum complurium copia; tertiam, quae terreret animos fulminibus, tempestatibus, nimbis, nivibus, grandinibus, vastitate, pestilentia, terrae motibus et saepe fremitibus, lapideisque imbribus et guttis imbrium quasi cruentis, tum *labibus* aut repentinis terrarum hiatibus, tum praeter naturam hominum pecudumque portentis, tum facibus visis caelestibus, tum stellis iis, quas Graeci cometas, nostri cincinnatas vocant, quae nuper bello Octaviano magnarum fuerunt calamitatum praenuntiae, tum sole geminato, quod, ut e patre audivi, Tuditano et Aquilio consulibus evenerat, quo quidem anno P. Africanus sol alter exstinctus est, quibus exterriti homines vim
15 quandam esse caelestem et divinam suspicati sunt; quartam causam esse, eamque vel maximam, aequabilitatem motus, conversionem caeli, solis, lunae siderumque omnium distinctionem, utilitatem, pulchritudinem, ordinem, quarum rerum aspectus ipse satis indicaret non esse ea fortuita. Ut, si quis in domum aliquam aut in gymnasium aut in forum venerit, cum videat omnium rerum rationem, modum, disciplinam, non possit ea sine causa fieri judicare, sed esse aliquem intellegat, qui

1 *medicinae* GH Madv., *medicina* MSS Mu. 2 *natura* MSS, *numen* conj. Sch. *Op.* III 27. 4 *summa* MSS, *sententia* Manut., *scientia* Pal. 3 ap. Grut. 10 *ceperimus* MSS, *caperemus* Bake and Forchhammer. 16 *labibus* edd. after Gulielmius, *lapidibus* MSS (from preceding *lapideis*, cf. *venenatis* § 126). 18 *iis* edd., *his* ACE, *is* B. *cometas*, *κομήτας* Swainson after Clavel. *cincinnatas* A²BCE Oxf. +, *cincinnitas* A¹, *cui crinitas* H, *crinitas* MRV Asc. 21 *consulibus*, *cos* AC. 24 *motus conversionem* MSS Allen, obel. Or., *motus conversionumque* Sch. Mu. after Ernesti, *motus in conversione* Ba. after Dav. 26 *utilitatem* MSS, *varietatem* El. M and N of Moser edd. after Manut.

praesit et cui pareatur; multo magis in tantis motionibus tantisque vicissitudinibus, tam multarum rerum atque tantarum ordinibus, in quibus nihil umquam immensa et infinita vetustas mentita sit, statuat necesse est ab aliqua mente tantos naturae motus gubernari. VI. Chrysippus quidem, quamquam est acerrimo 16 ingenio, tamen ea dicit, ut ab ipsa natura didicisse, non ut ipse repperisse videatur. 'Si enim,' inquit, 'est aliquid in rerum natura, quod hominis mens, quod ratio, quod vis, quod potestas humana efficere non possit, est certe id, quod illud efficit, homine melius; atqui res caelestes omnesque eae, quarum est ordo sempiternus, ab homine confici non possunt; est igitur id, quo illa conficiuntur, homine melius. Id autem quid potius dixeris quam deum? Etenim si di non sunt, quid esse potest in rerum natura homine melius? in eo enim solo est ratio, qua nihil potest esse praestantius. Esse autem hominem, qui nihil in omni mundo melius esse quam se putet, desipientis arrogantiae est; ergo est aliquid melius; est igitur profecto deus.' An vero, si 17 domum magnam pulchramque videris, non possis adduci, ut, etiamsi dominum non videas, muribus illam et mustelis aedificatam putes; tantum [ergo] ornatum mundi, tantam varietatem pulchritudinemque rerum caelestium, tantam vim et magnitudinem maris atque terrarum si tuum ac non deorum immortalium domicilium putes, nonne plane desipere videare? An ne hoc quidem intellegimus, omnia supera esse meliora, terram autem esse infimam, quam crassissimus circumfundat aër; ut ob eam

2 *tam multarum—gubernari* erased here in B, then follow § 86 *ex sese*—§ 156 *quae cum maxima*, then § 15—§ 86 *tam multarum—ferant aliquid*. 12 *quo* MSS, *a quo* G edd. after Lamb and Heind. see Comm. 14 after *deum* there is a disarrangement in MSS. ACEU Mus. Oxf. give first a few words from § 156 (*largitate—videtur*), then go on (as B) with § 86—§ 156 *ex sese—quae cum maxima*, then go back to § 16—§ 86 *etenim si di—efferant aliquid*, closing with § 156 to end, *largitate fundi—simulate*. E in going back to § 16 repeats from *tam multarum—deum* like B. The disarrangement, which is still found in the Ascensian ed. of A.D. 1511, is corrected in the Hervagian of 1534 and in all subsequent edd. From this point we have the readings of P (following § 111 *obscura specie*—§ 156 *quae cum maxima*) and V (following § 92 *terris rebusque*—§ 156 *quae cum maxima*). 22 *ergo* XBN Oxf. edd., om. **MRV** Asc. Heind. Madv. Forch., *vero* G **HLOUT**, see Comm.

ipsam causam, quod etiam quibusdam regionibus atque urbibus contingere videmus, hebetiora ut sint hominum ingenia propter caeli pleniorem naturam, hoc idem generi humano evenerit, quod
18 in terra, hoc est in crassissima regione mundi, collocati sint? Et tamen ex ipsa hominum sollertia esse aliquam *mundi* mentem, et eam quidem acriorem et divinam, existimare debemus. 'Unde enim hanc homo arripuit?' ut ait apud Xenophontem Socrates. Quin et umorem et calorem, qui est fusus in corpore, et terrenam ipsam viscerum soliditatem, anim*am* denique ill*am* spirabilem, si quis quaerat, unde habeamus, apparet, quod aliud a terra sumpsimus, aliud ab umore, aliud ab igni, aliud ab aëre eo, quem *spiritu ducimus.* VII. Illud autem, quod vincit haec omnia, rationem dico et, si placet pluribus verbis, mentem, consilium, cogitationem, prudentiam, ubi invenimus? unde sustulimus? An cetera mundus habebit omnia, hoc unum, quod plurimi est, non habebit? Atqui certe nihil omnium rerum melius est mundo, nihil praestabilius, nihil pulchrius, nec solum nihil est, sed ne cogitari quidem quicquam melius potest. Et si ratione et sapientia nihil est melius, necesse est haec inesse in eo, quod optimum esse con-
19 cedimus. Quid vero? tanta rerum consentiens, conspirans, continuata cognatio quem non coget ea, quae dicuntur a me, comprobare? Possetne uno tempore florere, dein vicissim horrere terra? aut tot rebus ipsis se immutantibus solis accessus discessusque solstitiis brumisque cognosci? aut aestus maritimi fretorumque angustiae ortu aut obitu lunae commoveri? aut una totius caeli conversione cursus astrorum dispares conservari? Haec ita fieri omnibus inter se concinentibus mundi partibus profecto non possent, nisi ea uno divino et continuato

3 *pleniorem, pinguiorem* Cobet *V. L.* p. 462. 4 *sint* A$^2$B$^2$[CEPV]**BM**, *sunt* A$^1$B$^1$**LOT**. 5 *aliquam mundi* Ed. see Comm., *aliquam* MSS and edd., *aliam quam* conj. Sch. 9 *animam—illam* Brieger, *animum—illum* MSS and edd. 10 *habeamus* E, *habemus* MSS generally. 11 *apparet* B$^2$V$^2$ Asc. **LMNO**, *appareat* ACEPB+. 12 *spiritu* edd., *spiritum* MSS. *ducimus* G**M**, *dicimus* MSS generally (cf. below § 75). 16 *plurimi* G**H**, *plurimum* MSS generally. 18 *ne cogitari* **MO**$^1$ Oxf. Asc., *nec cog.* A$^2$B$^2$CE**B** and (in ras.) V, *necotari* B$^1$, *negotiari* A$^1$P**H**, cf. III 23 and Madv. *Fin.* exc. 3. 22 *coget* MSS generally, *cogat* A$^2$B$^1$. 23 *uno, verno* conj. Bouh. cf. *Tusc.* v 37. *dein* [ABCPV]**BC**, *deinde* E Asc. +.

spiritu continerentur. Atque haec cum uberius disputantur et 20
fusius, ut mihi est in animo facere, facilius effugiunt Academicorum calumniam; cum autem, ut Zeno solebat, brevius angustiusque concluduntur, tum apertiora sunt ad reprehendendum. Nam ut profluens amnis aut vix aut nullo modo, conclusa autem aqua facile corrumpitur, sic orationis flumine reprehensoris *convicia* diluuntur, angustia autem conclusae orationis non facile se ipsa tutatur. Haec enim, quae
dilatantur a nobis, Zeno sic premebat: VIII. 'Quod ratione 21
utitur, id melius est quam id, quod ratione non utitur; nihil autem mundo melius; ratione igitur mundus utitur.' Similiter effici potest sapientem esse mundum, similiter beatum, similiter aeternum; omnia enim haec meliora sunt quam ea, quae sunt his carentia, nec mundo quicquam
melius; ex quo efficietur esse mundum deum. Idemque 22
hoc modo: 'Nullius sensu carentis pars aliqua potest esse sentiens; mundi autem partes sentientes sunt; non igitur caret sensu mundus.' Pergit idem et urget angustius: 'Nihil,' inquit, 'quod animi quodque rationis est expers, id generare ex se potest animantem compotemque rationis; mundus autem generat animantes compotesque rationis; animans est igitur mundus composque rationis.' Idemque similitudine, ut saepe solet, rationem conclusit hoc modo: 'Si ex oliva modulate canentes tibiae nascerentur, num dubitares, quin inesset in oliva tibicinii quaedam scientia? Quid, si platani fidiculas ferrent numerose sonantes? idem scilicet censeres, in platanis inesse musicam. Cur igitur mundus non animans sapiensque judicetur, cum ex se procreet animantes atque sapientes?'

IX. Sed quoniam coepi secus agere, atque initio dixeram 23
(negaram enim hanc primam partem egere oratione, quod esset omnibus perspicuum deos esse), tamen id ipsum rationibus physicis confirmari volo. Sic enim res se habet, ut omnia, quae

7 *convicia* edd. after Dav., *vitia* MSS. (Moser's O has *vitia condiluuntur.*) 14 *his* MSS, *iis* Mu. 15 *efficietur* ABV Oxf. Asc. **MO**+, *efficitur* [CEP] **BH** Or. Ba. Sch. 26 *tibicinii* **CR** Asc., *tibicini* MSS generally. *si platani—numerosa sonantes* Priscian III 5. 30. 27 *idem*, *item* conj. Ba. 34 *physicis*

alantur *atque* crescant, contineant in se vim caloris, sine qua neque ali possent nec crescere. Nam omne, quod est calidum et igneum, cietur et agitur motu suo; quod autem alitur et crescit, motu quodam utitur certo et aequabili; qui quam diu remanet in nobis, tam diu sensus et vita remanet; refrigerato
24 autem et exstincto calore occidimus ipsi et exstinguimur. Quod quidem Cleanthes his etiam argumentis docet, quanta vis insit caloris in omni corpore: negat enim esse ullum cibum tam gravem, quin is nocte et die concoquatur; cujus etiam in reliquiis in*sit* calor iis, quas natura respuerit. Jam vero venae et arteriae micare non desinunt quasi quodam igneo motu, animadversumque saepe est, cum cor animantis alicujus evulsum ita mobiliter palpitaret, ut imitaretur igneam celeritatem. Omne igitur, quod vivit, sive animal sive terra editum, id vivit propter inclusum in eo calorem. Ex quo intellegi debet eam caloris naturam vim habere in se vitalem per omnem mundum perti-
25 nentem. Atque id facilius cernemus toto genere hoc igneo, quod tranat omnia, subtilius explicato. Omnes igitur partes mundi (tangam autem maximas) calore fultae sustinentur. Quod primum in terrena natura perspici potest. Nam et lapidum conflictu atque tritu elici ignem videmus et recenti fossione t e r r a m f u m a r e c a l e n t e m, atque etiam ex puteis jugibus aquam calidam trahi, et id maxime fieri temporibus hibernis, quod magna vis terrae cavernis contineatur caloris eaque hieme sit densior ob eamque causam calorem insitum in terris contineat
26 artius. X. Longa est oratio multaeque rationes, quibus doceri possit omnia, quae terra concipiat semina, quaeque ipsa ex se generata stirpibus infixa contineat, ea temperatione caloris et oriri et augescere. Atque aquae etiam admixtum esse calorem primum ipse liquor aquae declarat [effusio], quae neque congla-

edd. after Lamb., *physicis* (or *fysicis*) *id est naturalibus* MSS Allen. *confirmari* MSS generally Allen, *confirmare* Reg. **CO** Moser's M edd.

1 *alantur—crescant* MSS generally, *aluntur—crescunt* G Or. Ba. Sch. *atque* Allen Or. Ba. Sch., *et quae* MSS generally Mu., *et* EGU Oxf. **LO**. 10 *insit* Heind., *inest* MSS edd. 21 *tritu* A²[BCEP]**LO**, *ritu* A¹V¹, *ictu* V² Oxf. Asc. +. 22 *fumare calentem* Asc. **LO**, *fumare recalentem* MSS generally. 24 *contineatur—sit—contineat* MSS generally, *continetur—fit—continet* Or. Ba. Sch. after Heind. (*continetur* **HR**, *fit* **CV** Mars., *continent* **H**). *caloris* after *vis* Forch. so **C** *cal. terr. cont. cav.* 25 *in terris*, *interius* Allen after Bouh. and Heind.

ciaret frigoribus neque nive pruinaque concresceret, nisi eadem se admixto calore liquefacta et dilapsa diffunderet. Itaque et aquilonibus reliquisque frigoribus adjectis durescit umor, et idem vicissim mollitur tepefactus et tabescit calore. Atque etiam maria agitata ventis ita tepescunt, ut intellegi facile possit in tantis illis umoribus esse inclusum calorem. Nec enim ille externus et adventicius habendus est tepor, sed ex intimis maris partibus agitatione excitatus, quod nostris quoque corporibus contingit, cum motu atque exercitatione recalescunt. Ipse vero aër, qui natura est maxime frigidus, minime est expers caloris; ille vero et multo quidem calore admixtus est; ipse enim oritur **27** ex respiratione aquarum; earum enim quasi vapor quidam aër habendus est; is autem exsistit motu ejus caloris, qui aquis continetur. Quam similitudinem cernere possumus in iis aquis, quae effervescunt subditis ignibus. Jam vero reliqua quarta pars mundi, ea et ipsa tota natura fervida est et ceteris naturis omnibus salutarem impertit et vitalem calorem. Ex quo con- **28** cluditur, cum omnes mundi partes sustineantur calore, mundum etiam ipsum simili parique natura in tanta diuturnitate servari, eoque magis, quod intellegi debet calidum illud atque igneum ita in omni fusum esse natura, ut in eo insit procreandi vis et causa gignendi, a quo et animantia omnia et ea, quorum stirpes terra continentur, et nasci sit necesse et augescere. XI. †Na- **29** tura est igitur,† quae contineat mundum omnem eumque tueatur, et ea quidem non sine sensu atque ratione; omnem enim naturam necesse est, quae non solitaria sit neque simplex, sed cum alio juncta atque conexa, habere aliquem in se principatum, ut in homine mentem, in belua quiddam simile mentis, unde oriantur rerum appetitus. In arborum autem et earum rerum, quae gignuntur e terra, radicibus inesse prin-

30 *declarat effusio* APV Mus., *declarat effusae* B, *declarat effusioque* EH, *declarat et effusio* G, *dederat effusio* C[1], *declarat* C[2] Or. Ba., *declarat et fusio* Allen Sch. Mu. Madv. *Adv.* II 242.

3 *adjectis* MSS generally, *adlectis* C, om. C, *adstrictis* Mu. after Heind. 14 *iis* edd., *his* MSS. 15 *effervescunt* BCV[2]BM Asc., *eis fervescunt* AEV[1], *fervescunt* PLO+, *eis effervescunt* Oxf., *ahenis fervescunt* H, *aeneis ferv.* G Red. N, *aeneis effervescunt* Med. of Dav.+, see Comm. *subditis* [V[2]] Oxf. Asc. M+, *subitis* XB+, *subjectis* HNO. 18 *calore* [CEP]A[2]V[2]+, *calorem* A[1]BV[1]. 23 *natura est igitur*, see Comm.

cipatus putatur. Principatum autem id dico, quod Graeci *ἡγεμονικόν* vocant, quo nihil in quoque genere nec potest nec debet esse praestantius. Ita necesse est illud etiam, in quo sit totius naturae principatus, esse omnium optimum omniumque
30 rerum potestate dominatuque dignissimum. Videmus autem in partibus mundi (nihil est enim in omni mundo, quod non pars universi sit) inesse sensum atque rationem. In ea parte igitur, in qua mundi inest principatus, haec inesse necesse est, et acriora quidem atque majora. Quocirca sapientem esse mundum necesse est, naturamque eam, quae res omnes complexa teneat, perfectione rationis excellere, eoque deum esse mundum, omnemque vim mundi natura divina contineri. Atque etiam mundi ille fervor purior, perlucidior mobiliorque *est* multo, ob easque causas aptior ad sensus commovendos quam hic noster calor, quo
31 haec, quae nota nobis sunt, retinentur et vigent. Absurdum igitur est dicere, cum homines bestiaeque hoc calore teneantur et propterea moveantur ac sentiant, mundum esse sine sensu, qui integro et libero et puro eodemque acerrimo et mobilissimo ardore teneatur, praesertim cum is ardor, qui est mundi, non agitatus ab alio neque externo pulsu, sed per se ipse ac sua sponte moveatur. Nam quid potest esse mundo valentius, quod pellat atque moveat calorem eum, quo ille teneatur? XII.
32 Audiamus enim Platonem quasi quendam deum philosophorum; cui duo placet esse motus, unum suum, alterum externum, esse autem divinius, quod ipsum ex se sua sponte moveatur, quam quod pulsu agitetur alieno. Hunc autem motum in solis animis esse ponit, ab hisque principium motus esse ductum putat. Quapropter, quoniam ex mundi ardore motus omnis oritur, is autem ardor non alieno impulsu, sed sua sponte movetur, animus sit necesse est; ex quo efficitur animantem esse mundum. Atque ex hoc quoque intellegi poterit in eo inesse intellegentiam, quod certe est mundus melior quam ulla natura. Ut

2 *ἡγεμονικόν* edd., in Lat. MSS generally. *quoque* A$^2$B Asc. +, *quoquo* CB, *quo* A$^1$PV Oxf.; *quoquam* E. 13 *est* before *multo* Lamb. Or. Ba. Mu., before *etiam* Bouh., after *aptior* Sch., om. MSS. 16 *cum* A$^2$B$^2$[V] Oxf. Asc. **HLMO**, *quin* CEPB. 18 *mobilissimo* MSS generally, *mollissimo* C, *nobilissimo* **MR** +. 19 *is* [CEPV$^2$] Asc., *his* ABV$^1$. 22 *qua* Ba. by misprint. 27 *hisque* B$^1$CEV Oxf. +, *isque* A, *iisque* B$^2$P +.

enim nulla pars est corporis nostri, quae non minor*is* sit, quam nosmet ipsi sumus, sic mundum universum pluris esse necesse est quam partem aliquam universi. Quod si ita est, sapiens sit mundus necesse est. Nam ni ita esset, hominem, qui est mundi pars, quoniam rationis esset particeps, pluris esse quam mundum omnem oporteret. Atque etiam, si a primis incohatisque naturis 33 ad ultimas perfectasque volumus procedere, ad deorum naturam perveniamus necesse est. Prima enim animadvertimus a natura sustineri ea, quae gignantur e terra, quibus natura nihil tribuit amplius, quam ut ea alendo atque augendo tueretur. Bestiis autem sensum et motum dedit et cum quodam appetitu 34 accessum ad res salutares, a pestiferis recessum; hoc homini amplius, quod addidit rationem, qua regerentur animi appetitus, qui tum remitterentur, tum continerentur. XIII. Quartus autem gradus est et altissimus eorum, qui natura boni sapientesque gignuntur, quibus a principio innascitur ratio recta constansque, quae supra hominem putanda est deoque tribuenda, id est mundo, in quo necesse est perfectam illam atque absolutam inesse rationem. Neque enim dici potest in ulla rerum 35 institutione non esse aliquid extremum atque perfectum. Ut enim in vite, ut in pecude, nisi quae vis obstitit, videmus naturam suo quodam itinere ad ultimum pervenire, atque ut pictura et fabrica ceteraeque artes habent quendam absoluti operis effectum, sic in omni natura, ac multo etiam magis, necesse est absolvi aliquid ac perfici. Etenim ceteris naturis multa externa, quo minus perficiantur, possunt obsistere, universam autem naturam nulla res potest impedire, propterea quod omnes naturas ipsa cohibet et continet. Quocirca necesse est esse quartum illum et altissimum gradum, quo nulla vis possit accedere. Is autem est gradus, in quo rerum omnium natura 36 ponitur; quae quoniam talis est, ut et praesit omnibus et eam nulla res possit impedire, necesse est intellegentem esse mundum

1 *minoris* **M** of Moser edd. after Ursin., *minor* MSS. 4 *qui est* V$^2$**M** Asc., *qui esset* X+. 5 *rationis esset* A$^1$CEPV$^1$**BH**, *rat. est* A$^2$BV$^2$**MO** Asc. see Comm. 8 *prima* ABEV**BMV** Oxf. Asc., *primo* [CP] **HLO** Or. Ba. Sch., *primum* **R** Mu. (who compares *Ac.* II 30) see Comm. 9 *gignantur* MSS, *gignuntur* **LO** Or. Ba. Sch. after Manut. see Comm. 11 *sensum, et sensum* Heind. and Klotz with G. 19 *in ulla* V$^2$ Oxf. **LM**, *in nulla* MSS generally, *in illa* V Asc.

et quidem etiam sapientem. Quid autem est inscitius quam eam naturam, quae omnes res sit complexa, non optimam dici, aut, cum sit optima, non primum animantem esse, deinde rationis et consilii compotem, postremo sapientem? Qui enim potest aliter esse optima? Neque enim, si stirpium similis sit aut etiam bestiarum, optima putanda sit potius quam deterrima, nec vero, si rationis particeps sit nec sit tamen a principio sapiens, non sit deterior mundi potius quam humana condicio; homo enim sapiens fieri potest, mundus autem si in aeterno praeteriti temporis spatio fuit insipiens, numquam profecto sapientiam consequetur; ita erit homine deterior. Quod quoniam absurdum est, et sapiens a principio mundus et deus
37 habendus est. XIV. Scite enim Chrysippus, ut clipei causa involucrum, vaginam autem gladii, sic praeter mundum cetera omnia aliorum causa esse generata, ut eas fruges atque fructus, quos terra gignit, animantium causa, animantes autem hominum, ut equum vehendi causa, arandi bovem, venandi et custodiendi canem. Ipse autem homo ortus est ad mundum contemplandum et imitandum, nullo modo perfectus, sed [est] quaedam particula perfecti. Neque enim est quicquam aliud praeter mundum, cui nihil absit, quodque undique aptum atque per-
38 fectum expletumque sit omnibus suis numeris et partibus. Sed mundus quoniam omnia complexus est, neque est quicquam, quod non insit in eo, perfectus undique est. Qui igitur potest ei deesse id, quod est optimum? nihil autem est mente et ratione melius; ergo haec mundo deesse non possunt. Bene igitur idem Chrysippus, qui similitudines adjungens omnia in perfectis et maturis docet esse meliora, ut in equo quam in eculeo, in cane quam in catulo, in viro quam in puero, item, quod in omni

13 *habendus est*, after this follows in all MSS and edd. *neque enim—partibus*, which I have put after *perfecti* at the end of § 37, see Comm. 16 *gignit* MSS generally, *gignat* Red. Heind. Allen. 18 *ortus est* MSS, *qui ortus* Red. Heind., *ortus* **B** Vaucher, who transfers *est* in next line to end of sentence. 19 *sed* **H** Moser's E Fa. and M Allen, *sed est* MSS generally (perhaps dittographia of *set*, cf. § 73). 21 *cui* B, *quo* MSS generally (doubtless for original *quoi*). *quodque—sit* om. **BC**. 23 *neque est* MSS, *neque enim est* G**H** Heind. 24 *qui* G edd. after Gron., *quid* MSS (cf. above § 5). 25 *id quod* [ACE] **BHG**, *quod* B[1]PV**M** Oxf. +. *autem est* MSS, *est autem* Sch. 28 *eculeo* X +, *equulo* C[2]**BHNV**, *equuleo* **MR**.

mundo optimum sit, id in perfecto aliquo atque absoluto esse debere; est autem nihil mundo perfectius, nihil virtute melius; 39
igitur mundi est propria virtus. Nec vero hominis natura perfecta est, et efficitur tamen in homine virtus; quanto igitur in mundo facilius! est ergo in eo virtus; sapiens est igitur et propterea deus.

XV. Atque hac mundi divinitate perspecta tribuenda est sideribus eadem divinitas, quae ex mobilissima purissimaque aetheris parte gignuntur, neque ulla praeterea sunt admixta natura totaque sunt calida atque perlucida, ut ea quoque rectissime et animantia esse et sentire atque intellegere dicantur. Atque ea quidem tota esse ignea duorum sensuum testimonio 40
confirmari Cleanthes putat, tactus et oculorum. Nam solis et candor illustrior est quam ullius ignis, quippe qui immenso mundo tam longe lateque colluceat, et is ejus tactus est, non ut tepefaciat solum, sed etiam saepe comburat, quorum neutrum faceret, nisi esset igneus. 'Ergo,' inquit, 'cum sol igneus sit Oceanique alatur umoribus, quia nullus ignis sine pastu aliquo possit permanere, necesse est aut ei similis sit igni, quem adhibemus ad usum atque victum, aut ei, qui corporibus animantium continetur. Atqui hic noster ignis, quem usus vitae requirit, 41
confector est et consumptor omnium, idemque, quocumque invasit, cuncta disturbat ac dissipat; contra ille corporeus vitalis et salutaris omnia conservat, alit, auget, sustinet sensuque afficit.' Negat ergo esse dubium, horum ignium sol utri similis sit, cum is quoque efficiat, ut omnia floreant et in suo quaeque genere pubescant. Quare cum solis ignis similis eorum ignium sit, qui sunt in corporibus animantium, solem quoque animantem esse oportet, et quidem reliqua astra, quae oriantur in ardore caelesti, qui aether vel caelum nominatur. Cum igitur aliorum 42

1 *id* [CP]**BM** Asc., corr. fr. *is* AV, *is* BE. 8 *mobilissima* X except *nobilissima* PV², *mollissima* **B**. 9 *sunt* MSS, *est* Or. Ba. see Comm. 13 *et candor* edd. after Klotz, *calor et candor* **XB** Oxf., *ardor et candor* H, *candor et calor* **LNCO**, *candor* **MRVU** Heind. 14 *ullius* [ABPV] Oxf. **O**, *ullus* CE**BHM**+. *immenso* MSS Klotz Sch., *in immenso* Reg. of Dav. Or. Ba. Mu. 15 *tactus* by corr. fr. *tactu* AV. 19 *posset* Mu. on *Acad.* II 72, see Comm. 20 *atque* **XBH** Oxf.+, *atque ad* **MRV** Sch. 21 *atqui* **MN** Red, edd. after Dav., *atque* MSS generally, cf. § 16. 22 *omnium* MSS generally, om. Oxf. V¹**R** Asc. 29 *et quidem* MSS, *atque item* Or. Ba. after Heind. see Comm.

animantium ortus in terra sit, aliorum in aqua, in aëre aliorum, absurdum esse Aristoteli videtur in ea parte, quae sit ad gignenda animantia aptissima, animal gigni nullum putare. Sidera autem aetherium locum obtinent; qui quoniam tenuissimus est et semper agitatur et viget, necesse est, quod animal in eo gignatur, id et sensu acerrimo et mobilitate celerrima esse. Quare cum in aethere astra gignantur, consentaneum est in his sensum inesse et intellegentiam, ex quo efficitur in deorum numero astra esse ducenda. XVI. Etenim licet videre acutiora ingenia et ad intellegendum aptiora eorum, qui terras incolant eas, in quibus aër sit purus ac tenuis, quam illorum, qui utantur
**43** crasso caelo atque concreto. Quin etiam cibo quo utare, interesse aliquid ad mentis aciem putant. Probabile est igitur praestantem intellegentiam in sideribus esse, quae et aetheriam partem mundi incolant et marinis terrenisque umoribus longo intervallo extenuatis alantur. Sensum autem astrorum atque intellegentiam maxime declarat ordo eorum atque constantia —nihil est enim, quod ratione et numero moveri possit sine consilio—in quo nihil est temerarium, nihil varium, nihil fortuitum. Ordo autem siderum et in omni aeternitate constantia neque naturam significat—est enim plena rationis—neque fortunam, quae amica varietati constantiam respuit. Sequitur ergo, ut
**44** ipsa sua sponte, suo sensu ac divinitate moveantur. Nec vero Aristoteles non laudandus in eo, quod omnia, quae moventur, aut natura moveri censuit aut vi aut voluntate; moveri autem solem et lunam et sidera omnia; quae autem natura moverentur, haec aut pondere deorsum aut levitate in sublime ferri, quorum neutrum astris contingeret, propterea quod eorum motus in orbem circumferretur. Nec vero dici potest vi quadam majore fieri, ut contra naturam astra moveantur; quae enim potest major esse? Restat igitur, ut motus astrorum sit voluntarius. Quae qui videat, non indocte solum, verum etiam impie faciat, si deos esse neget. Nec sane multum interest, utrum id

6 *id et* BC, *id est* $A^1PV^1H$, *idem* EBLO, *idemque* MRCV Oxf. +. 7 *his* MSS Dav. Heind. Allen, *iis* edd. after Moser. 24 *laudandus* MSS generally, *laudandus est* A Or. Ba. Mu. 27 *in sublime* MSS, *sublime* Or. Ba., [*in*] *sublime* Sch. Mu. 29 *circumferretur* Sch., *circumque ferretur* MSS generally, *circumquaque ferr.* HO Heind.

neget an eos omni procuratione atque actione privet; mihi enim, qui nihil agit, esse omnino non videtur. Esse igitur deos ita perspicuum est, ut, id qui neget, vix eum sanae mentis existimem.

XVII. Restat, ut, qualis eorum natura sit, consideremus; 45 in quo nihil est difficilius quam a consuetudine oculorum aciem mentis abducere. Ea difficultas induxit et vulgo imperitos et similes philosophos imperitorum, ut nisi figuris hominum constitutis nihil possent de dis immortalibus cogitare; cujus opinionis levitas confutata a Cotta non desiderat orationem meam. Sed cum talem esse deum certa notione animi praesentiamus, primum ut sit animans, deinde ut in omni natura nihil eo sit praestantius, ad hanc praesensionem notionemque nostram nihil video quod potius accommodem, quam ut primum hunc ipsum mundum, quo nihil excellentius fieri potest, animantem esse et deum judicem. Hic quam volet Epicurus jocetur, homo non 46 aptissimus ad jocandum minimeque *resipiens* patriam, et dicat se non posse intellegere, qualis sit volubilis et rotundus deus, tamen ex hoc, quod etiam ipse probat, numquam me movebit. Placet enim illi esse deos, quia necesse sit praestantem esse aliquam naturam, qua nihil sit melius. Mundo autem certe nihil est melius. Nec dubium, quin, quod animans sit habeatque sensum et rationem et mentem, id sit melius quam id, quod his careat. Ita efficitur animantem, sensus, mentis, rationis 47 mundum esse compotem; qua ratione deum esse mundum concluditur. Sed haec paulo post facilius cognoscentur ex iis rebus ipsis, quas mundus efficit.

XVIII. Interea, Vellei, noli, quaeso, prae te ferre vos plane expertes esse doctrinae. Conum tibi ais et cylindrum et pyramidem pulchriorem quam sphaeram videri. Novum etiam oculorum judicium habetis. Sed sint ista pulchriora dumtaxat aspectu, quod mihi tamen ipsum non videtur; quid enim pulchrius ea figura, quae sola omnes alias figuras complexa continet,

5 *restat* MSS generally, *sane restat* V Oxf. Asc. **MCV** (from *sanae* above). 17 *resipiens* edd. after Ursin., *respiciens* MSS. 18 *rutundus* AV Or. Ba. 24 *his* B¹[E] Asc., *iis* AB²CV Oxf. B, *is* PU. *animantem—compotem* MSS (exc. *an. esse sens. ment. rat. comp.* G), P has *mentem*, H (like G) omits *mundum esse*, Heind. conj. *an. mund. esse et s. m. r. c.* 28 *quaero* Or. Ba. (by mistake?).

quaeque nihil asperitatis habere, nihil offensionis potest, nihil incisum angulis, nihil anfractibus, nihil eminens, nihil lacunosum? cumque duae formae praestantiss*imae* sint, ex solidis globus (sic enim *σφαῖραν* interpretari placet), ex planis autem circulus aut orbis, qui *κύκλος* Graece dicitur, his duabus formis contingit solis, ut omnes earum partes sint inter se simillimae a medioque tant*undem undique* absit extremum, quo nihil fieri potest ap-
48 tius. Sed si haec non videtis, quia numquam eruditum illum pulverem attigistis, ne hoc quidem physici intellegere potuistis, hanc aequabilitatem motus constantiamque ordinum in alia figura non potuisse servari? Itaque nihil potest indoctius, quam quod a vobis affirmari solet. Nec enim hunc ipsum mundum pro certo rotundum esse dicitis; nam posse fieri, ut sit alia
49 figura, innumerabilesque mundos alios aliarum esse formarum. Quae, si, bis bina quot essent, didicisset Epicurus, certe non diceret; sed dum palato, quid sit optimum, judicat, 'caeli palatum,' ut ait Ennius, non suspexit. XIX. Nam cum duo sint genera siderum, quorum alterum spatiis immutabilibus ab ortu ad occasum commeans nullum umquam cursus sui vestigium inflectat, alterum autem continuas conversiones duas isdem spatiis cursibusque conficiat, ex utraque re et mundi volubilitas, quae nisi in globosa forma esse non posset, et stellarum rotundi ambitus cognoscuntur. Primusque sol, qui astrorum tenet principatum, ita movetur, ut, cum terras larga luce compleverit, easdem modo his, modo illis ex partibus opacet; ipsa enim umbra terrae soli officiens noctem efficit; nocturnorum autem spatiorum eadem est aequabilitas, quae diur-

3 *praestantissimae* Nonius p. 432 Klotz Forch., *praestantis* AVH, *praestantes* MSS generally. 4 *σφαῖραν* edd., *spheram* or *speram* MSS. *circulus* MSS, *circus* Nonius Dav. 5 *κύκλος* edd., *ciclus* or *cyclus* MSS. 6 *medioque tantundem undique absit* Ed., *medioque tantundem summum absit et* Allen, *medioque ubique tantundem absit* Klotz Sch.$^2$, *medioque tantundem absit* Or. Ba. Mu. after Madv. *Philol. Schneid.* II p. 140, *medioque tantum absit* MSS (exc. *tandum* B) Sch.$^4$. 7 *extremum* XBHILG, *extremum quantum idem a summo* UV$^2$ Red. Asc. + Sch., *ext. q. medium a summo* Dav. Heind. 10 *aequabilitatem* Red. N edd., *aequalitatem* MSS generally. 11 *potest* ACEPV$^1$BH, *potest esse* [B] V$^2$ Oxf. Asc. + edd. 15 *quot* CEPV$^2$GH Oxf. Red., *quod* AB$^1$V$^1$UBO, *quid* B$^2$M. 21 *conficiat* HB by corr., *confeciat* A by corr., *confectat* CEPBLUT, *confecta* V Oxf. +. 22 *posset*, *potest* G. 26 *officientis* Gesner Heind. 27 *diurnorum*, by corr. fr. *diornorum* AV.

norum; ejusdemque solis tum accessus modici, tum recessus et frigoris et caloris modum temperant; circumitus enim solis orbium quinque et sexaginta et trecentorum quarta fere diei parte addita conversionem conficiunt annuam; inflectens autem sol cursum tum ad septentriones, tum ad meridiem, aestates et hiemes efficit et ea duo tempora, quorum alterum hiemi senescenti adjunctum est, alterum aestati. Ita ex quattuor temporum mutationibus omnium, quae terra marique gi-
gnuntur, initia causaeque ducuntur. Jam solis annuos cursus 50
spatiis menstruis luna consequitur, cujus tenuissimum lumen facit proximus accessus ad solem, digressus autem longissimus quisque plenissimum. Neque solum ejus species ac forma mutatur tum crescendo, tum defectibus in initia recurrendo, sed etiam regio, quae tum est aquilonia, tum australis. In lunae quoque cursu est et brumae quaedam et solstitii similitudo, multaque ab ea manant et fluunt, quibus et animantes alantur augescantque, et pubescant maturitatemque assequantur quae
oriuntur e terra. XX. Maxime vero sunt admirabiles motus 51
earum quinque stellarum, quae falso vocantur errantes. Nihil enim errat, quod in omni aeternitate conservat progressus et regressus reliquosque motus constantes et ratos. Quod eo est admirabilius in his stellis, quas dicimus, quia tum occultantur, tum rursus aperiuntur, tum *ad*eunt, tum recedunt, tum antecedunt, tum autem subsequuntur, tum celerius moventur, tum tardius, tum omnino ne moventur quidem, sed ad quoddam tempus insistunt. Quarum ex disparibus motionibus magnum annum mathematici nominaverunt, qui tum efficitur, cum solis et lunae et quinque errantium ad eandem inter se comparationem
confectis omnium spatiis est facta conversio. Quae quam longa 52

3 *quinque et sexaginta et trecentorum* ABV, *V et LX et trecentorum* Oxf., *V et LX et CCC* R edd., *quinque et sexaginta et trecenti* Heind. Allen after Cujacius, *quinque defectibus et sexaginta et trecentorum* CB and (with omission of former *et*) E, (with insertion of *est* before former *et*) PL, (reading *diebus* for *defectibus*) C El. Reg. Manut. (*defectibus* was probably omitted below l. 13, then added in margin and wrongly transferred to this place). 13 *tum defectibus in initia recurrendo* in marg. of B. 14 *aquilonia* GHR, *aquilenta* XB Oxf. +, *aquilonaris* Asc., *aquilonalis* U + Mars. *tum* (2nd) VHMR +, *aut* ABCEPB Oxf. *in* MSS, *inde in* Or. Ba. Mu., *ita in* Sch., *nam in* Heind. 23 *adeunt* Moser's O edd. after Ursin., *abeunt* MSS, *obeunt* Asc. 24 *autem* [X] Oxf. Asc., om. G Bed. Heind. Sch.

sit, magna quaestio est, esse vero certam et definitam necesse est. Nam ea, quae Saturni stella dicitur Φαίνωνque a Graecis nominatur, quae a terra abest plurimum, XXX fere annis cursum suum conficit, in quo cursu multa mirabiliter efficiens tum antecedendo, tum retardando, tum vespertinis temporibus delitiscendo, tum matutinis rursum se aperiendo, nihil immutat sempiternis saeclorum aetatibus, quin eadem isdem temporibus efficiat. Infra autem hanc propius a terra Jovis stella fertur, quae Φαέθων dicitur, eaque eundem XII signorum orbem annis XII conficit
53 easdemque, quas Saturni stella, efficit in cursu varietates. Huic autem proximum inferiorem orbem tenet Πυρόεις, quae stella Martis appellatur, eaque IIII et XX mensibus VI, ut opinor, diebus minus eundem lustrat orbem, quem duae superiores. Infra hanc autem stella Mercurii est ; ea Στίλβων appellatur a Graecis; quae anno fere vertente signiferum lustrat orbem neque a sole longius umquam unius signi intervallo discedit tum antevertens, tum subsequens. Infima est quinque errantium terraeque proxima stella Veneris, quae Φωσφόρος Graece, Lucifer Latine dicitur, cum antegreditur solem, cum subsequitur autem, Ἕσπερος ; ea cursum anno conficit et latitudinem lustrans signiferi orbis et longitudinem, quod idem faciunt stellae superiores, neque umquam ab sole duorum signorum intervallo longius dis-
54 cedit tum antecedens, tum subsequens. XXI. Hanc igitur in stellis constantiam, hanc tantam tam variis cursibus in omni aeternitate convenientiam temporum non possum intellegere sine mente, ratione, consilio. Quae cum in sideribus inesse videamus, non possumus ea ipsa non in deorum numero reponere. Nec vero eae stellae, quae inerrantes vocantur, non significant eandem mentem atque prudentiam ; quarum est cotidiana conveniens constansque conversio, nec habent aetherios cursus neque caelo inhaerentes, ut plerique dicunt physicae rationis ignari. Non est enim aetheris ea natura, ut vi sua stellas complexa contorqueat ; nam tenuis ac perlucens et aequabili calore

2 *Saturni* by corr. BV also Oxf. HM Asc.+, *Saturnis* A, *Saturnia* CEB. *Φαίνωνque*, this and the following Greek names are given in Latin letters in MSS. 19 Ἕσπερος, *Hesperus* Heind. Allen, *Vesper Latine*, *Graece* Ἕσπερος conj. Heind. p. XIII. 27 *ponere* ap. Lact. II 5. 31 *inhaerentes sunt* conj. Swainson (the omission being due to *s* followed by *ut*).

suffusus aether non satis aptus ad stellas continendas videtur.
Habent igitur suam sphaeram stellae inerrantes ab aetheria 55
conjunctione secretam et liberam. Earum autem perennes cur-
sus atque perpetui cum admirabili incredibilique constantia
declarant in his vim et mentem esse divinam, ut, haec ipsa qui
non sentiat deorum vim habere, is nihil omnino sensurus esse
videatur. Nulla igitur in caelo nec fortuna nec temeritas nec 56
erratio nec vanitas inest contraque omnis ordo, veritas, ratio,
constantia; quaeque his vacant, ementita et falsa plenaque
erroris, ea circum terras infra lunam, quae omnium ultima est,
in terrisque versantur. Caelestium ergo admirabilem ordinem
incredibilemque constantiam, ex qua conservatio et salus
omnium omnis oritur, qui vacare mente putat, is ipse mentis
expers habendus est. Haud ergo, ut opinor, erravero, si a 57
principe investigandae veritatis hujus disputationis principium
duxero.

XXII. Zeno igitur naturam ita definit, ut eam dicat ignem
esse artificiosum, ad gignendum progredientem via. Censet
enim artis maxime proprium esse creare et gignere; quodque
in operibus nostrarum artium manus efficiat, id multo artifi-
ciosius naturam efficere, id est, ut dixi, ignem artificiosum,
magistrum artium reliquarum. Atque hac quidem ratione
omnis natura artificiosa est, quod habet quasi viam quandam
et sectam, quam sequatur. Ipsius vero mundi, qui omnia com- 58
plexu suo coërcet et continet, natura non artificiosa solum, sed
plane artifex ab eodem Zenone dicitur, consultrix et provida
utilitatum opportunitatumque omnium. Atque ut ceterae natu-
rae suis seminibus quaeque gignuntur, augescunt, continentur,
sic natura mundi omnes motus habet voluntarios, conatusque
et appetitiones, quas ὁρμάς Graeci vocant, et his consentaneas
actiones sic adhibet, ut nosmet ipsi, qui animis movemur et sen-
sibus. Talis igitur mens mundi cum sit, ob eamque causam vel
prudentia vel providentia appellari recte possit (Graece enim

5 *iis* Mu. praef. VIII. 8 *vanitas* MSS generally, *varietas* L Moser's DIM.
9 *ementita* [BCEP]**BH** by corr. V, *ea mentita* **MCR** Oxf., *mentita* by corr. A.
11 *versantur* **CBH**, *versatur* ABEPV Oxf. +. *caelestium* G Moser's La edd.
after Dav., *caelestem* MSS generally (cf. below § 64). 28 *quaeque* AE Mus.,
*quaequae* BCPV (see Madv. *Fin.* p. 656¹). 30 ὁρμάς, Latin in MSS.

*πρόνοια* dicitur), haec potissimum providet et in his maxime est occupata, primum ut mundus quam aptissimus sit ad permanendum, deinde ut nulla re egeat, maxime autem ut in eo eximia pulchritudo sit atque omnis ornatus.

59 XXIII. Dictum est de universo mundo, dictum etiam [est] de sideribus, ut jam prope modum appareat multitudo nec cessantium deorum nec ea, quae agant, molientium cum labore operoso ac molesto. Non enim venis et nervis et ossibus continentur nec iis escis aut potionibus vescuntur, ut aut nimis acres aut nimis concretos umores colligant, nec iis corporibus sunt, ut casus aut ictus extimescant aut morbos metuant ex defetigatione membrorum; quae verens Epicurus monogrammos
60 deos et nihil agentes commentus est. Illi autem pulcherrima forma praediti purissimaque in regione caeli collocati ita feruntur moderanturque cursus, ut ad omnia conservanda et tuenda consensisse videantur.

Multae autem aliae naturae deorum ex magnis beneficiis eorum non sine causa et a Graeciae sapientissimis et a majoribus nostris constitutae nominataeque sunt. Quicquid enim magnam utilitatem generi afferret humano, id non sine divina bonitate erga homines fieri arbitrabantur. Itaque tum illud, quod erat a deo natum, nomine ipsius dei nuncupabant, ut cum fruges Cererem appellamus, vinum autem Liberum, ex quo illud Terentii

sine Cerere et Libero friget Venus;

61 tum autem res ipsa, in qua vis inest major aliqua, sic appellatur, ut ea ipsa nominetur deus, ut Fides, ut Mens, quas in Capitolio dedicatas videmus proxime a M. Aemilio Scauro; ante autem ab *A.* Atilio Calatino erat Fides consecrata. Vides Virtutis templum, vides Honoris a M. Marcello renovatum, quod *non* multis

1 *πρόνοια*, Latin in MSS. 5 *dictum est—pluribus verbis explicatus est* (§ 63) om. P. *etiam est* ABVRV edd., *etiam* CBC, *est etiam* E Oxf. +, *est* G Red. U. 6 *modum* [AEV +] Oxf. Asc., *mundum* B$^1$CB (cf. I 33). 8 *venis et* Oxf. MOB$^2$V$^2$, *venisset* B$^1$B, *venis sed* ACE, *venis nec* V$^1$. 9 *iis* edd., *hiis* B, *his* ACVB +, *hys* E. 10 *iis* M edd., *is* A, *hiis* B, *his* CVB, *hys* E. 22 *natum* MSS, exc. *donatum* G$^2$ Heind. 27 *ipsa* B El. +, *ipsa vis* ACEV$^2$ Mus., *ipsa vi* V$^1$, *ipsa res* Dav. 29 *A. Atilio* Sch. Mu. after Fleckeisen *Krit. Misc.* p. 56, *Atilio* MSS Or. Ba. *Fides, Spes* Lamb. Heind. *vides—vides* V$^2$ Oxf. MO, *vides—vide* ABV$^1$H, *vide—vide* CEB. 30 *multis* MSS edd., *haud multis* Bouh., *nonnullis* Dav.

ante annis erat bello Ligustico a Q. Maximo dedicatum. Quid Opis? quid Salutis? quid Concordiae, Libertatis, Victoriae? quarum omnium rerum quia vis erat tanta, ut sine deo regi non posset, ipsa res deorum nomen obtinuit. Quo ex genere Cupidinis et Voluptatis et Lubentinae Veneris vocabula consecrata sunt, vitiosarum rerum neque naturalium; quamquam Velleius aliter existimat; sed tamen ea ipsa vitia naturam vehementius saepe pulsant. Utilitatum igitur magnitudine 62
constituti sunt ei di, qui utilitates quasque gignebant. Atque his quidem nominibus, quae paulo ante dicta sunt, quae vis sit in quoque declaratur deo.

XXIV. Suscepit autem vita hominum consuetudoque communis, ut beneficiis excellentes viros in caelum fama ac voluntate tollerent. Hinc Hercules, hinc Castor et Pollux, hinc Aesculapius, hinc Liber etiam;—hunc dico Liberum Semela natum, non eum, quem nostri majores auguste sancteque [Liberum] cum Cerere et Libera consecraverunt, quod quale sit, ex mysteriis intellegi potest: sed quod ex nobis natos 'liberos' appellamus, idcirco Cerere nati nominati sunt Liber et Libera, quod in Libera servant, in Libero non item;— hinc etiam Romulu*s*, quem quidem eundem esse Quirinum putant; quorum cum remanerent animi atque aeternitate fruerentur, rite di sunt habiti, cum et optimi essent et aeterni.

Alia quoque ex ratione, et quidem physica, magna fluxit 63
multitudo deorum, qui induti specie humana fabulas poëtis suppeditaverunt, hominum autem vitam superstitione omni referserunt. Atque hic locus a Zenone tractatus post a Cleanthe et Chrysippo pluribus verbis explicatus est. Nam *cum* vetus haec

15 *Semela* V Oxf. (cf. *Tusc.* I 28 *Liber Semela natus* in all Orelli's MSS), *Semele* BCEA$^2$+, *semel* A$^1$. 17 [*Liberum*] Mu., om. **HINR** Sch. after Walker Heind., *Liberum* MSS Or. Ba. 18 *mysteriis* [ABCE]**BO**, *ministeriis* V Oxf. **LMR**+. 20 *Libera—Libero* MSS generally, *libero—libera* **NG** Red. Manut. Heind. *Romulus* edd., *Romulum* MSS (assimilated to *Liberum*). 21 *quidem* E**VH**, *quidam* ABC**B**+. 25 *induti* **H$^2$ILN** Asc., *inducti* **XBH$^1$MCV** Oxf. 28 *nam cum vetus—opplevisset* Ba. after Moser and Bake (cf. § 6 *nuntiavisset*), *nam vetus—opplevisset* ABC**B**, *n. v.—applevisset* E, *n. v.—opplevit* V (by corr. fr. *opplevisse*) **LNO**U Or. Sch. Mu. (with period after *Jove*), *n. v.—opplevit scilicet* **RV** El. Med. Asc. Klotz (Sch. proposes to put *scilicet* before *physica*), *n. v.—opplevit sed* **C** Reg. Red. Oxf., *n. v.—opplevit esse* Heind.

opinio Graeciam opplevisset, exsectum Caelum a filio Saturno, 64 vinctum autem Saturnum ipsum a filio Jove, physica ratio non inelegans inclusa est in impias fabulas; caelestium enim altissimam aetheriamque naturam, id est igneam, quae per sese omnia gigneret, vacare voluerunt ea parte corporis, quae conjunctione alterius egeret ad procreandum. XXV. Saturnum autem eum esse voluerunt, qui cursum et conversionem spatiorum ac temporum contineret, qui deus Graece id ipsum nomen habet; Κρόνος enim dicitur, qui est idem χρόνος, id est spatium temporis. Saturnus autem est appellatus, quod saturaretur annis; ex se enim natos comesse fingitur solitus, quia consumit aetas temporum spatia annisque praeteritis insaturabiliter expletur, vinctus autem a Jove, ne immoderatos cursus haberet, atque ut eum siderum vinclis alligaret. Sed ipse Juppiter, id est 'juvans pater,' quem conversis casibus appellamus a juvando Jovem, a poëtis 'pater divumque hominumque' dicitur, a majoribus autem nostris 'optimus maximus,' et quidem ante 'optimus,' id est beneficentissimus, quam 'maximus,' quia majus est certeque 65 gratius prodesse omnibus quam opes magnas habere,—hunc igitur Ennius, ut supra dixi, nuncupat ita dicens,

Aspice hoc sublime candens, quem invocant omnes Jovem;

planius quam alio loco idem,

*Qui*, quod in me est, exsecrabor hoc, quod lucet, quicquid est;

hunc etiam augures nostri, cum dicunt 'Jove fulgente, tonante;' [dicunt enim 'caelo fulgente, tonante.'] Euripides autem, ut multa praeclare, sic hoc [breviter]:

3 *caelestium* BM Oxf., *caelestum* AECR, *caelestem* [BCV]HOL Lact. I 12 edd. 9 Κρόνος—χρόνος, Latin in MSS. *qui est idem* [X]B +, *quod est idem quod* Lact. l. c. *χρόνος id est* [X]BH +, om. ILNOVR. 15 *pater quem* CEP +, *partem que* A, *pater quae* BV. 19 *habere*, Mu. after Bake, *habere.* MSS Or. Ba. Sch. 21 *sublime* MSS generally, *suplime* B, *supplime* P, *sublimen* Or. Ba. Sch. cf. § 4. 22 *planius quam* BO, *planius quem* AVH Oxf., *planiusque* EBR +, *pleniusque* C. 23 *qui* Gulielmius, *cui* MSS generally edd., *cur* C Reg. Dav. see Comm. 24 *Jove fulgente tonante* [ACEV] Oxf. BM, *j. fulg. et ton.* B, *jovem fulgentem tonantem* PHLU Asc. +. 25 *dicunt enim—tonante* [X Mus.] edd., om. G and 2 codd. of Gulielm. Heind. *caelo* B, *celo* A², *melo* A¹CEPVB Oxf. +, *in caelo* LOV +. *fulgente tonante* EM, *fulg. et ton.* BCPV Oxf. B +, *fulgentae tonantae* A, *fulgentem et tonantem* HLOUT. 26 *breviter* MSS Ba. Mu., om. Heind., in brackets Or. Sch., *graviter* Bouh. and (omitting *hoc*) Vaucher,

Vides sublime fusum, immoderatum aethera,
qui terram tenero circumjectu amplectitur:
hunc summum habeto divum, hunc perhibeto Jovem.

XXVI. Aër autem, ut Stoici disputant, interjectus inter mare 66 et caelum Junonis nomine consecratur, quae est soror et conjunx Jovis, quod et similitudo est *aëri* aetheris et cum eo summa conjunctio. Effeminarunt autem eum Junonique tribuerunt, quod nihil est eo mollius. Sed Junonem a juvando credo nominatam. Aqua restabat et terra, ut essent ex fabulis tria regna divisa. Datum est igitur Neptuno, alteri Jovis, ut volunt, fratri, maritimum omne regnum, nomenque productum, ut Portunus a portu, sic Neptunus a nando paulum primis litteris immutatis. Terrena autem vis omnis atque natura Diti patri dedicata est, qui Dives, ut apud Graecos Πλούτων, quia et recidunt omnia in terras et oriuntur e terris. Cui Proserpinam *nuptam*, quod Graecorum nomen est; ea enim est, quae Περσεφόνη Graece nominatur, quam frugum semen esse volunt absconditamque quaeri a matre fingunt. Mater autem est a 67 gerendis frugibus Ceres tamquam 'Geres,' casuque prima littera itidem immutata, ut a Graecis; nam ab illis quoque Δημήτηρ quasi Γημήτηρ nominata est. Jam qui magna verteret, Mavors, Minerva autem, quae vel minueret vel minaretur. XXVII. Cumque in omnibus rebus vim haberent maximam prima et extrema, principem in sacrificando Janum esse voluerunt, quod ab eundo nomen est ductum, ex quo transitiones perviae 'jani,' foresque in liminibus profanarum aedium 'januae' nominantur. Nam Vestae nomen a Graecis; ea est enim, quae ab illis Ἑστία

*verti enim* (omitting *hoc*) Allen. 6 *quod et* MSS, *quod ei* Prob. (in *Buc.* p. 12 Keil) edd., *quod ei et* Heind. *aëri aetheris* Ed., *aetheris* MSS edd., *aëris* Prob. see Comm. 10 *alteri* A$^2$O$^2$U Lamb., *alterum* (assimilated to *regnum*) A$^1$BCEV$^1$**B**, *altero* PV$^2$ Oxf. O$^1$**HM**+Heind. Sch. 12 *portu* PB$^2$C$^2$**H**, *porta* AEVB$^1$C$^1$**B** Oxf.+. 14 Πλούτων edd., *Pluton* MSS. 15 *recidunt* AO Prob., *recidant* MSS generally. *oriuntur* MSS generally, *oriantium* E, *oriantur* Asc.+Heind. Allen. *cui Proserpinam nuptam* Ed., *cui Proserpinam* ABEV**BMO**+, *cui Proserpina* C (which omits *quod Graecorum* and *ea enim est*) **PHN**, *is rapuit Proserpinam* Manut. (e cod. Maffei) Heind., *cui nuptam dicunt Proserpinam* edd. (the words *nuptam dicunt* are found in Reg. and **C** after *nominatur* and so printed by Allen). See Comm. 17, 20, 21 Περσεφόνη, Δημήτηρ and Γημήτηρ are written in Latin in MSS. 27 *nam* MSS, *jam* Ba. after Wölfflin. *a Graecis* MSS generally, *a Graecis est* Reg. **NC** Lamb. Sch. Ba.,

dicitur. Vis autem ejus ad aras et focos pertinet. Itaque in ea dea, quod est rerum custos intimarum, omnis et precatio et sacri-
68 ficatio extrema est. Nec longe absunt ab hac vi di Penates sive a penu ducto nomine (est enim omne, quo vescuntur homines, penus) sive ab eo, quod penitus insident; ex quo etiam 'penetrales' a poëtis vocantur. Jam Apollinis nomen est Graecum, quem Solem esse volunt; Dianam autem et Lunam eandem esse putant; cum Sol dictus sit, vel quia solus ex omnibus sideribus est tantus vel quia, cum est exortus, obscuratis omnibus solus apparet; Luna a lucendo nominata sit, eadem est enim Lucina. Itaque, ut apud Graecos Dianam, eamque Luciferam, sic apud nostros Junonem Lucinam in pariendo invocant; quae eadem Diana 'omnivaga' dicitur, non a venando, sed quod in septem numeratur tamquam vagantibus,
69 Diana dicta, quia noctu quasi diem efficeret. Adhibetur autem ad partus, quod ii maturescunt aut septem non numquam aut, ut plerumque, novem lunae cursibus, qui quia mensa spatia conficiunt, 'menses' nominantur. Concinneque, ut multa, Timaeus, qui cum in historia dixisset, qua nocte natus Alexander esset, eadem Dianae Ephesiae templum deflagravisse, adjunxit minime id esse mirandum, quod Diana, cum in partu Olympiadis adesse voluisset, afuisset domo. Quae autem dea ad res omnes veniret, Venerem nostri nominaverunt, atque ex ea potius 'venustas' quam 'Venus' ex venustate.

70 XXVIII. Videtisne igitur, ut a physicis rebus bene atque utiliter inventis tracta ratio sit ad commenticios et fictos deos? quae res genuit falsas opiniones erroresque turbulentos et superstitiones paene aniles. Et formae enim nobis deorum et aetates et vestitus ornatusque noti sunt, genera praeterea, conjugia, cognationes omniaque traducta ad similitudinem imbecillitatis humanae; nam et perturbatis animis inducuntur—accepimus enim deorum cupiditates, aegritudines, iracundias—nec vero, ut

*est a Graecis* U. Cf. § 44 *laudandus*. 'Εστία, Latin in MSS. 2 *quod* MSS generally, *quae* **IV**, *que* E. 7 after *Dianam autem* there is a gap in P to § 162 *deorum prudentia*. 16 *quod ii* [A]$B^2V^2$, *quod hi* Oxf. **HO**$C^2$, *quod* $B^1C^1$ Probus, *quodi* $V^1$, *quo dy* E. 20 *deflagravisse* [CEP]$V^2$**BH**, *deagravisse* A, *demigravisse* B by corr., *deam migravisse* $V^1$ Oxf. 22 *afuisset* edd., *afuisse* $A^1BC^1V^1$, *abfuisse* $C^2$, *affuisse* E, *affuisset* **BL**, *adfuisset* Oxf., *abfuisset* $A^2V^2$+. 31 *accepimus* **HILO** Aug. *C. D.* IV 30, *accipimus* MSS generally cf. III 42, 47.

fabulae ferunt, bellis proeliisque caruerunt, nec solum, ut apud Homerum, cum duo exercitus contrarios alii di ex alia parte defenderent, sed etiam, ut cum Titanis, ut cum Gigantibus, sua propria bella gesserunt. Haec et dicuntur et creduntur stultissime et plena sunt futtilitatis summaeque levitatis. Sed tamen **71** his fabulis spretis ac repudiatis deus pertinens per naturam cujusque rei, per terras Ceres, per maria Neptunus, alii per alia, poterunt intellegi qui qualesque sint, quoque eos nomine consuetudo nuncupaverit; quos deos et venerari et colere debemus. Cultus autem deorum est optimus idemque castissimus atque sanctissimus plenissimusque pietatis, ut eos semper pura, integra, incorrupta et mente et voce veneremur. Non enim philosophi solum, verum etiam majores nostri superstitionem a religione separaverunt. Nam qui totos dies precabantur et immolabant, **72** ut sibi sui liberi superstites essent, superstitiosi sunt appellati, quod nomen patuit postea latius; qui autem omnia, quae ad cultum deorum pertinerent, diligenter retractarent et tamquam relegerent, sunt dicti religiosi ex relegendo, ut elegantes ex eligendo, ex diligendo diligentes, ex intellegendo intellegentes. His enim in verbis omnibus inest vis legendi eadem, quae in religioso. Ita factum est in superstitioso et religioso alterum vitii nomen, alterum laudis. Ac mihi videor satis et esse deos, et quales essent, ostendisse.

XXIX. Proximum est, ut doceam deorum providentia **73** mundum administrari. Magnus sane locus et a vestris, Cotta,

1 *bellis* [X]BHM Oxf. +, *di bellis* LOU Asc. Aug. l. c. 3 *etiam ut* [ABEV] HM Oxf., *etiam* CBLOU. *ut cum Gigantibus* [ABE]V¹M Oxf., *et cum gig.* CB, *aut cum gig.* Aug., *id est gig.* V²HNU, *cum gig.* LO. 8 *poterunt* MSS generally, *poterant* AB². 9 *quos deos* ABCEV¹BOC, *hos deos* UV² Asc. Oxf. +, *hoc eos* edd. after Keil *Qu. Tull.* p. xxii, see Sch. *Opusc.* III p. 331 and Comm. 18 *religiosi—intellegentes*, text Mu. and (with insertion of *itemque* from G after *eligendo*) Sch., *rel. ex rel.* [*elegantes ex eligendo*] *tamquam ex dil. dil. ex int. int.* Or. Ba., *rel. ex rel. tamquam ex eligendo elegantes, ex dil. dil. ex int. int.* Forchhammer and Walker (following Isid. *Orig.* x 234, Lact. IV 28). *religiosi—eligendo*, *religiosi ex legendo elegantes ex eligendo* A, *relegiosi ex relegendo elegantes ex elegendo* BV, *rel. ex relegando elegantes ex legendo* C, *religiosi ex relegendo* E Oxf. *ex diligendo—intellegentes*, *tamquam legendo delegendis ex intellegendo intellegentes* ABCBHOU (seemingly a monkish sentiment, 'by reading out of the legends men are famed for understanding through understanding them'), *diligentes et ex intellegendo* Oxf., *delegendis ex int. int.* E, *tamquam a deligendo deligentes ex int. int.* V. 25 *locus* V Red. + Lamb. Heind. Allen Sch.,

vexatus, ac nimirum vobiscum omne certamen est. Nam vobis, Vellei, minus notum est, quem ad modum quidque dicatur; vestra enim solum legitis, vestra amatis, ceteros causa incognita condemnatis. Velut a te ipso hesterno die dictum est anum fatidicam πρόνοιαν a Stoicis induci, id est providentiam. Quod eo errore dixisti, quia existimas ab iis providentiam fingi quasi quandam deam singularem, quae mundum omnem gubernet et
74 regat; sed id praecise dicitur. Ut, si quis dicat Atheniensium rem publicam consilio regi, desit illud 'Areopagi,' sic, cum dicimus providentia mundum administrari, deesse arbitrato 'deorum;' plene autem et perfecte sic dici existimato: providentia deorum mundum administrari. Ita salem istum, quo caret vestra natio, in irridendis nobis nolitote consumere, et mehercle, si me audiatis, ne experiamini quidem; non decet, non datum est, non potestis. Nec vero hoc in te un*um* convenit, moribus domesticis ac nostrorum hominum urbanitate limat*um*, sed cum in reliquos vestros, tum in eum maxime, qui ista peperit, hominem sine arte, sine litteris, insultantem in omnes,
75 sine acumine ullo, sine auctoritate, sine lepore. XXX. Dico igitur providentia deorum mundum et omnes mundi partes et initio constitutas esse et omni tempore administrari; eamque disputationem tres in partes nostri fere dividunt, quarum prima pars est, quae ducitur ab ea ratione, quae docet esse deos; quo concesso confitendum est eorum consilio mundum administrari. Secunda est autem, quae docet omnes res subjectas esse naturae sentienti, ab eaque omnia pulcherrime geri; quo constituto sequitur ab animantibus principiis eam esse generatam. Tertius

*locus est* [ABCE Mus.] Asc. Or. Ba. Mu., *locutus est* Oxf. 5 *πρόνοιαν*, Lat. in MSS. *id est providentiam* MSS, om. Ursin. Dav. Heind., in brackets Or. Ba. 6 *existumas* AVB$^2$B, *existimes* B$^1$, *existimabas* CE. 10 *arbitrato* [X]BO Oxf., *arbitrator* R Heind. Allen Ba. 13 *in* Asc. Oxf. U [Mus.], om. IN Or. Ba. (without note). *nolitote* MSS generally, *nolite* HLN Heind. 15 *hoc* MSS generally, om. CEB Oxf. *in te uno convenit—limato* MSS (but Oxf. omits *uno*), *in te unum convenit—limatum* Lamb. and (with insertion after *convenit* of *vel potius in te unum non convenit*) Madv. (with mark of omission after *convenit*) Or. Ba., *in te convenit unum—limatum* Sch. Mu. after Kindervater. 23 *pars* bracketed by Or. Ba. after Ernesti. 27 *eam esse generatam* MSS generally Kühner, *ea esse generata* G edd. after Bouh., *esse omnia generata* N Red. Heind. See Comm.

est locus, qui ducitur ex admiratione rerum caelestium atque terrestrium.

Primum igitur aut negandum est esse deos, quod et Demo- 76 critus simulacra et Epicurus imagines inducens quodam pacto negat, aut, qui deos esse concedant, iis fatendum est eos aliquid agere, idque praeclarum; nihil est autem praeclarius mundi administratione; deorum igitur consilio administratur. Quod si aliter est, aliquid profecto sit necesse est melius et majore vi praeditum quam de*us*, quale id cumque est, sive inanima natura sive necessitas vi magna incitata haec pulcherrima opera efficiens, quae videmus. Non est igitur natura deorum prae- 77 potens neque excellens, siquidem ea subjecta est ei vel necessitati vel naturae, qua caelum, maria, terrae regantur; nihil est autem praestantius deo; ab eo igitur mundum necesse est regi. Nulli igitur est naturae oboediens aut subjectus deus, omnem ergo regit ipse naturam. Etenim si concedimus intellegentes esse deos, concedimus etiam providentes, et rerum quidem maximarum. Ergo utrum ignorant, quae res maximae sint, quoque eae modo tractandae et tuendae, an vim non habent, qua tantas res sustineant et gerant? At et ignoratio rerum aliena naturae deorum est, et sustinendi muneris propter imbecillitatem difficultas minime cadit in majestatem deorum. Ex quo efficitur id, quod volumus, deorum providentia mundum administrari. XXXI. Atqui necesse est, cum sint di, si modo 78 sunt, ut profecto sunt, animantes esse, nec solum animantes, sed etiam rationis compotes inter seque quasi civili conciliatione et societate conjunctos, unum mundum ut communem rem publicam atque urbem aliquam regentes. Sequitur, ut eadem sit 79 in iis, quae humano in genere, ratio, eadem veritas utrobique sit eademque lex, quae est recti praeceptio pravique depulsio. Ex quo intellegitur prudentiam quoque et mentem a dis ad

1 *ducitur* BEM, *dicitur* ACVHC, *dr* BO Oxf. cf. above § 18. 8 *sit necesse est melius* ABCBHLO Oxf., *sit necesse est melius esse* EC, *sit necesse est esse melius* (*esse* superscr.) VIMNV Asc., *necesse est esse melius* Heind. 9 *deus* B² edd., *deos* AB¹CEV Mus. Oxf. U Heind. Allen. 13 Lact. I 5 *nihil est praestantius deo: ab eo igitur mundum regi necesse est. Nulli—ipse naturam.* 24 *atqui* MSS generally, *atque* U, cf. § 89. *modo sunt* GNC Reg. edd. after Walker, *modo sint* MSS generally.

homines pervenisse, ob eamque causam majorum institutis
mens, fides, virtus, concordia consecratae et publice dedicatae
sunt. Quae qui convenit penes deos esse negare, cum eorum
augusta et sancta simulacra veneremur? Quodsi inest in homi-
num genere mens, fides, virtus, concordia, unde haec in terram
nisi ab superis defluere potuerunt? Cumque sint in nobis
consilium, ratio, prudentia, necesse est deos haec ipsa habere
majora, nec habere solum, sed etiam his uti in maximis et opti-
80 mis rebus. Nihil autem nec majus nec melius mundo; necesse
est ergo eum deorum consilio et providentia administrari.
Postremo cum satis docuerimus hos esse deos, quorum insignem
vim et illustrem faciem videremus, solem dico et lunam et
vagas stellas et inerrantes et caelum et mundum ipsum et
earum rerum vim, quae inessent in omni mundo cum magno
usu et commoditate generis humani, efficitur omnia regi divina
mente atque prudentia. Ac de prima quidem parte satis
dictum est.

81 XXXII. Sequitur, ut doceam omnia subjecta esse naturae,
eaque ab ea pulcherrime geri. Sed quid sit ipsa natura, expli-
candum est ante breviter, quo facilius id, quod docere volumus,
intellegi possit. Namque alii naturam esse censent vim quan-
dam sine ratione cientem motus in corporibus necessarios, alii
autem vim participem rationis atque ordinis tamquam via pro-
gredientem declarantemque, quid cujusque rei causa efficiat,
quid sequatur, cujus sollertiam nulla ars, nulla manus, nemo
opifex consequi possit imitando; seminis enim vim esse tantam,
ut id, quamquam sit perexiguum, tamen, si inciderit in conci-
pientem comprehendentemque naturam nactumque sit materiam,
qua ali augerique possit, ita fingat et efficiat in suo quicque
genere, partim ut tantum modo per stirpes alantur suas, partim
ut moveri etiam et sentire et appetere possint et ex sese
82 similia sui gignere. Sunt autem, qui omnia naturae nomine
appellent, ut Epicurus, qui ita dividit: omnium, quae sint,
naturam esse corpora et inane, quaeque his accidant. Sed nos

8 *his*, *iis* conj. Mu. 9 *autem* ABCE$V^1$BO, *autem est* $V^2$+, *autem esse* CR Oxf. Asc. 19 *eaque ab ea* MSS generally, *eaque* R., *ab eaque* Allen (comparing § 75). *geri* MSS generally, *regi* E Asc. 20 *volumus* MSS, *volimus* ap. Priscian IX 1 8 ('*volim*' *pro* '*velim*' *proferebant antiqui* &c.) Allen. 34 *his* BECRV Mu.

cum dicimus natura constare administrarique mundum, non ita dicimus, ut glaebam aut fragmentum lapidis aut aliquid ejus modi nulla cohaerendi natura, sed ut arborem, ut animal, in quibus nulla temeritas, sed ordo apparet et artis quaedam similitudo.

XXXIII. Quodsi ea, quae a terra stirpibus continentur, 83
arte naturae vivunt et vigent, profecto ipsa terra eadem vi continetur [arte naturae], quippe quae gravidata seminibus omnia pariat et fundat ex sese, stirpes amplexa alat et augeat, ipsaque alatur vicissim a superis externisque naturis. Ejusdemque exspirationibus et aër alitur et aether et omnia supera. Ita, si terra natura tenetur et viget, eadem ratio in reliquo mundo est; stirpes enim terrae inhaerent; animantes autem aspiratione aëris sustinentur, ipseque aër nobiscum videt, nobiscum audit, nobiscum sonat; nihil enim eorum sine eo fieri potest; quin etiam movetur nobiscum; quacumque enim imus, quacumque movemur, videtur quasi locum dare et cedere. Quaeque in medium locum mundi, qui est infimus, et quae a 84
medio in superum quaeque conversione rotunda circum medium feruntur, ea continentem mundi efficiunt unamque naturam. Et cum quattuor genera sint corporum, vicissitudine eorum mundi continuata natura est. Nam ex terra aqua, ex aqua oritur aër, ex aëre aether, deinde retrorsum vicissim ex aethere aër, inde aqua, ex aqua terra infima. Sic naturis his, ex quibus omnia constant, sursus deorsus, ultro citro commeantibus mundi partium conjunctio continetur. Quae aut sempi- 85
terna sit necesse est hoc eodem ornatu, quem videmus, aut certe perdiuturna, permanens ad longinquum et immensum paene tempus. Quorum utrumvis ut sit, sequitur natura mundum administrari. Quae enim classium navigatio aut quae instructio exercitus aut, rursus ut ea, quae natura efficit, conferamus, quae procreatio vitis aut arboris, quae porro animantis figura conformatioque membrorum tantam naturae sollertiam signi-

Sch., *iis* [ACV] B Or. Ba. 3 *nulla cohaerendi* MSS, *sola coh.* Walker, *nulla nisi coh.* Heind. 8 *arte naturae* MSS (by repetition from above), om. Dav. Or. Ba., in brackets Mu., *et arte naturae* UL Sch., *naturae* GH Heind. 17 *quacumque movemur* BVM Oxf., *qua movemur* ACEBHLO. 24 *his* Sch. Mu., *iis* C Or. Ba., *hiis* B, *is* AV, *hys* E. 31 *ea quae* BE, *eaque* ACV.

ficat, quantam ipse mundus? Aut igitur nihil est, quod sentiente natura regatur, aut mundum regi confitendum est.
86 Etenim, qui reliquas naturas omnes earumque semina contineat, qui potest ipse non natura administrari? ut, si qui dentes et pubertatem natura dicat exsistere, ipsum autem hominem, cui ea exsistant, non constare natura, non intellegat ea, quae efferant aliquid ex sese, perfectiores habere naturas quam ea, quae ex his efferantur. XXXIV. Omnium autem rerum, quae natura administrantur, seminator et sator et parens, ut ita dicam, atque educator et altor est mundus, omniaque sicut membra et partes suas nutricatur et continet. Quodsi mundi partes natura administrantur, necesse est mundum ipsum natura administrari, cujus quidem administratio nihil habet in se, quod reprehendi possit; ex iis enim naturis, quae erant, quod effici optimum
87 potuit, effectum est. Doceat ergo aliquis potuisse melius. Sed nemo umquam docebit, et si quis corrigere aliquid volet, aut deterius faciet aut id, quod fieri non potuerit, desiderabit. Quodsi omnes mundi partes ita constitutae sunt, ut neque ad usum meliores potuerint esse neque ad speciem pulchriores, videamus, utrum ea fortuitane sint an eo statu, quo cohaerere nullo modo potuerint nisi sensu moderante divinaque providentia. Si igitur meliora sunt ea, quae natura, quam illa, quae arte perfecta sunt, nec ars efficit quicquam sine ratione, ne natura quidem rationis expers est habenda. Qui igitur convenit, signum aut tabulam pictam cum aspexeris, scire adhibitam esse artem, cumque procul cursum navigii videris, non dubitare, quin id ratione atque arte moveatur, aut, cum solarium vel discriptum vel ex aqua contemplere, intellegere declarari

6 *efferant* Sch., *ecferant* **C** Or. Ba. Mu., *et ferant* **ACB**, *haec ferat* **ILOVT** and (by corr. fr. *ferant*) B, *hec ferant* E, *eo ferant* V, *nec ferant* **M** Oxf. 7 After *aliquid* in ABCEVUT Oxf. Mus. follow § 156 to end of book (*largitate fundit—simulate*), see on § 16. *ex sese perfectiores—non modo nihil nocent*, §§ 86—92, wanting in V. *his* **XBNR** (*fortasse recte* Mu.), *iis* edd. 8 *efferantur* MSS, *ecferantur* Or. Ba. Mu. 11 *nutricatur* MSS, *nutricat* G Heind. see Comm. 14 *iis* edd., *his* XB+. 17 *faciet* **BMO** Asc., *facit* ACE**BHL** Oxf. *non* B superscr. Oxf. **M** Asc., om. ACE**BH**+. *potuerit* [X]**BH**, *potuit* **MCORVU** Oxf. Asc. 27 *aut cum* ABC Asc., *ut cum* E, *et cum* Walker Sch. 28 *vel discriptum vel* Or. Ba. Mu. cf. Nipperd. *Op.* p. 278, *vel descriptum aut* MSS generally, *aut descriptum aut* **NO**, *a. discriptum a.* Sch. (cf. I 26 n.).

horas arte, non casu, mundum autem, qui et has ipsas artes et earum artifices et cuncta complectatur, consilii et rationis esse expertem putare? Quodsi in Scythiam aut in Britanniam 88
sphaeram aliquis tulerit hanc, quam nuper familiaris noster effecit Posidonius, cujus singulae conversiones idem efficiunt in sole et in luna et in quinque stellis errantibus, quod efficitur in caelo singulis diebus et noctibus, quis in illa barbaria dubitet, quin ea sphaera sit perfecta ratione? XXXV. Hi autem dubitant de mundo, ex quo et oriuntur et fiunt omnia, casune ipse sit effectus aut necessitate aliqua an ratione ac mente divina, et Archimedem arbitrantur plus valuisse in imitandis sphaerae conversionibus quam naturam in efficiendis, praesertim cum multis partibus sint illa perfecta quam haec simulata sollertius. Atqui ille apud Accium pastor, qui navem 89
numquam ante vidisset, ut procul divinum et novum vehiculum Argonautarum e monte conspexit, primo admirans et perterritus hoc modo loquitur:

—tanta moles labitur
fremibunda ex alto ingenti sonitu et spiritu.
prae se undas volvit, vertices vi suscitat,
ruit prolapsa, pelagus respergit, reflat.
ita dum interruptum credas nimbum volvier,
dum quod sublime ventis expulsum rapi
saxum aut procellis, vel globosos turbines
exsistere ictos undis concursantibus,
nisi quas terrestres pontus strages conciet,
aut forte Triton fuscina evertens specus
subter radices penitus undanti in freto
molem ex profundo saxeam ad caelum eruit.

Dubitat primo, quae sit ea natura, quam cernit ignotam; idemque, juvenibus visis auditoque nautico cantu, sic, *ait*

14 *atqui* [CE], *atque* **ABBOMRV** Oxf. *Accium* Or. Ba. Mu. (see Teuffel *Rom. Lit.* § 119), *Attium* Dav. Sch., *Actium* MSS. 19 the six lines *fremibunda—reflat* and *aut forte—eruit* are found in Priscian *Metr. Ter.* II 15. *spiritu* Prisc. edd., *strepitu* MSS. 20 *undas volvit* Prisc. [B], *undas evolvit* ACE Mus., *evolvit undas* Oxf. 21 *reflat* Prisc., *profluit* MSS. 22 *dum* MSS, *num* G Heind., *tum* Bouh. 25 *ictos* MSS, *actos* Bouh. 28 *undanti in freto* Prisc., *undantes veniant freto* **XBHLO** (by dittogr. of *undant.*), *undante venire freto* **MCRV** Oxf., *undantes in freto* M of Moser. 29 *eruit* MSS generally, *erui* Oxf. Υ **MNCRV**, *erigit* Lachm. on Lucr. v 1388 Ribbeck Ba., *vomit* Prisc., *evomit* Toup. ad Longin. *Subl.* 3, *evehit* Klotz. 31 *sic, ait, inciti atque* Ed., *sicut inciti atque*

inciti atque alacres rostris perfremunt
delphini.

Item alia multa:

Silvani melo
consimilem ad aures cantum et auditum refert.

90 Ergo ut hic primo aspectu inanimum quiddam sensuque vacuum se putat cernere, post autem signis certioribus, quale sit id, de quo dubitaverat, incipit suspicari, sic philosophi debuerunt, si forte eos primus aspectus mundi conturbaverat, postea, cum vidissent motus ejus finitos et aequabiles omniaque ratis ordinibus moderata immutabilique constantia, intellegere inesse aliquem non solum habitatorem in hac caelesti ac divina domo, sed etiam rectorem et moderatorem et tamquam architectum tanti operis tantique muneris. XXXVI. Nunc autem mihi videntur ne suspicari quidem, quanta sit admirabilitas caelestium rerum atque terrestrium.

91 Principio enim terra sita in media parte mundi circumfusa undique est hac animali spirabilique natura, cui nomen est aër, Graecum illud quidem, sed perceptum jam tamen usu a nostris; tritum est enim pro Latino. Hunc rursus amplectitur immensus aether, qui constat ex altissimis ignibus. Mutuemur hoc quoque verbum, dicaturque tam 'aether' Latine, quam dicitur aër, etsi interpretatur Pacuvius:

Hoc, quod memoro, nostri caelum, Graii perhibent aethera.

Quasi vero non Graius hoc dicat. At Latine loquitur. Si quidem nos non quasi Graece loquentem audiamus. Docet idem alio loco:

Grajugena de istoc aperit ipsa oratio.

92 Sed ad majora redeamus. Ex aethere igitur innumerabiles flammae siderum exsistunt, quorum est princeps sol omnia

MSS generally, *sic aut inciti atque* Ribbeck fr. ed. I Or. Ba., *sicut lascivi atque* Ribb. ed. II, *sic incitati atque* G, *sic incitati et* Heind. Sch., *sic: ut inciti atque* Dav. Allen, *simis inciti atque* Lachm. ad Lucr. II 266, †*sicut—delphini*† Mu.

1 *perfremunt, perfricant* Lachm. l. c. 3 *item alia multa* MSS, *item alto mulcta* Ribb. l. c., *item illa moles* conj. Mu. praef. 5 *consimilem* **ILNOV**, *consimile* **XBMR** Oxf. 17 *principio—est aër* Probus ad *Ecl.* VI p. 18 Keil. 18 *animali* Prob. Oxf., *animabili* MSS generally. 24 *id quod nostri caelum memorant* Varro *L. L.* V 17. 28 *Grajugena de istoc* edd. after Bothe, *Graj. d. isto* MSS generally, *Gr. d. ista* E, *Grajugenam ted esse* Grotius.

clarissima luce collustrans, multis partibus major atque amplior quam terra universa, deinde reliqua sidera magnitudinibus immensis. Atque hi tanti ignes tamque multi non modo nihil nocent terris rebusque terrestribus, sed ita prosunt, ut, si mota loco sint, conflagrare terras necesse sit a tantis ardoribus moderatione et temperatione sublata.

XXXVII. Hic ego non mirer esse quemquam, qui sibi 93 persuadeat corpora quaedam solida atque individua vi et gravitate ferri, mundumque effici ornatissimum et pulcherrimum ex eorum corporum concursione fortuita? Hoc qui existimet fieri potuisse, non intellego, cur non idem putet, si innumerabiles unius et viginti formae litterarum vel aureae vel qualeslibet aliquo conjiciantur, posse ex his in terram excussis annales Ennii, ut deinceps legi possint, effici; quod nescio an ne in uno quidem versu possit tantum valere fortuna. Isti autem 94 quem ad modum asseverant, ex corpusculis non colore, non qualitate aliqua, quam ποιότητα Graeci vocant, non sensu praeditis, sed concurrentibus temere atque casu mundum esse perfectum, vel innumerabiles potius in omni puncto temporis alios nasci, alios interire. Quodsi mundum efficere potest concursus atomorum, cur porticum, cur templum, cur domum, cur urbem non potest? quae sunt minus operosa et multo quidem [faciliora]. Certe ita temere de mundo effutiunt, ut mihi quidem numquam hunc admirabilem caeli ornatum, qui locus est proximus, suspexisse videantur. Praeclare ergo Aristoteles: 'Si 95 essent', inquit, 'qui sub terra semper habitavissent bonis et illustribus domiciliis, quae essent ornata signis atque picturis instructaque rebus iis omnibus, quibus abundant ii, qui beati putantur, nec tamen exissent umquam supra terram, accepissent autem fama et auditione esse quoddam numen et vim deorum, deinde

4 *terris rebusque* here V recommences. *mota*, *moti* N Heind. 10 *existimet* GHV¹ + Heind. Allen Ba., *existimat* MSS generally Or. Sch. Mu. see Comm. 11 *innumerabiles* [A]B¹O Oxf., *inenumerabiles* CEVB²BMR. 13 *his* [ACEV]U Oxf. Asc. Heind. Sch., *iis* B Or. Ba. Mu. 17 ποιότητα, Lat. in MSS. 20 *interire?* edd. see Comm. 23 *faciliora* MSS Mu., om. Madv., bracketed Or. Sch. Ba. 28 *iis*, *his* XBU Oxf. Asc. +. 29 *ii* [B] edd., *hi* ACEVB +, *hii* Oxf.

aliquo tempore patefactis terrae faucibus ex illis abditis sedibus exire potuissent atque evadere in haec loca, quae nos incolimus: cum repente terram et maria caelumque vidissent, nubium magnitudinem ventorumque vim cognovissent aspexissentque solem ejusque cum magnitudinem pulchritudinemque, tum etiam efficientiam cognovissent, quod is diem efficeret toto caelo luce diffusa; cum autem terras nox opacasset, tum caelum totum cernerent astris distinctum et ornatum lunaeque luminum varietatem tum crescentis, tum senescentis eorumque omnium ortus et occasus atque in omni aeternitate ratos immutabilesque cursus; quae cum viderent, profecto et esse deos et haec
96 tanta opera deorum esse arbitrarentur.' XXXVIII. Atque haec quidem ille. Nos autem tenebras cogitemus tantas, quantae quondam eruptione Aetnaeorum ignium finitimas regiones obscuravisse dicuntur, ut per biduum nemo hominem homo agnosceret, cum autem tertio die sol illuxisset, tum ut revixisse sibi viderentur. Quodsi hoc idem ex aeternis tenebris contingeret, ut subito lucem aspiceremus, quaenam species caeli videretur? Sed assiduitate cotidiana et consuetudine oculorum assuescunt animi neque admirantur neque requirunt rationes earum rerum, quas semper vident, proinde quasi novitas nos magis quam magnitudo rerum debeat ad exquirendas causas
97 excitare. Quis enim hunc hominem dixerit, qui cum tam certos caeli motus, tam ratos astrorum ordines tamque inter se omnia conexa et apta viderit, neget in his ullam inesse rationem eaque casu fieri dicat, quae quanto consilio gerantur, nullo consilio assequi possumus? An, cum machinatione quadam moveri aliquid videmus, ut sphaeram, ut horas, ut alia permulta, non dubitamus, quin illa opera sint rationis; cum autem impetum caeli cum admirabili celeritate moveri vertique

2 *sedibus exire potuissent atque evadere* Ed., *sedibus exire atque evadere* (leaving *potuissent* after *incolimus*) Allen, *sedibus evadere* then (after *incolimus*) *atque exire potuissent* MSS. 6 *cum magn.* ABCV, *tum magn.* E Oxf. UR+, om. TO. 9 *tum caelum* CEVG+, *cum caelum* ABUV. 10 *luminum*, placed after *omnium* below by Allen. 13 *quae cum* MSS Heind. Allen Or. Mu., *cum* Madv., [*quae*] *cum* Ba., *cum haec ergo* C, *haec cum* Lamb. Sch.

videamus constantissime conficientem vicissitudines anniversarias cum summa salute et conservatione rerum omnium, dubitamus, quin ea non solum ratione fiant, sed etiam excellenti divinaque ratione? Licet enim jam remota subtilitate dispu- 98
tandi oculis quodam modo contemplari pulchritudinem rerum earum, quas divina providentia dicimus constitutas.

XXXIX. Ac principio terra universa cernatur, locata in media sede mundi, solida et globosa et undique ipsa in sese nutibus suis conglobata, vestita floribus, herbis, arboribus, frugibus, quorum omnium incredibilis multitudo insatiabili varietate distinguitur. Adde huc fontium gelidas perennitates, liquores perlucidos amnium, riparum vestitus viridissimos, speluncarum concavas *ampl*itudines, saxorum asperitates, impendentium montium altitudines immensitatesque camporum; adde etiam reconditas auri argentique venas infinitamque vim marmoris. Quae 99
vero et quam varia genera bestiarum vel cicurum vel ferarum! qui volucrium lapsus atque cantus! qui pecudum pastus! quae vita silvestrium! Quid jam de hominum genere dicam? qui quasi cultores terrae constituti non patiuntur eam nec immanitate beluarum efferari nec stirpium asperitate vastari, quorumque operibus agri, insulae litoraque collucent distincta tectis et urbibus. Quae si, ut animis, sic oculis videre possemus, nemo cunctam intuens terram de divina ratione dubitaret. At vero 100
quanta maris est pulchritudo! quae species universi! quae multitudo et varietas insularum! quae amoenitates orarum ac litorum! quot genera quamque disparia partim submersarum, partim fluitantium et innantium beluarum, partim ad saxa nativis testis inhaerentium! Ipsum autem mare sic terram appetens litoribus alludit, ut una ex duabus naturis conflata

1 *videamus* MSS generally, *videmus* Madv. with EI of Moser Or. Ba. see Comm. 13 *amplitudines* Heind. Ba., *altitudines* MSS, *latitudines* Lamb. see Comm. 17 *volucrium* BV ('ut Fin. II 110 Charisii auctoritate scribitur' Mu.) Ba., *volucrum* [ACE] Or. Sch. 22 *possemus* [EV] Oxf. **HM**, *possimus* ABC**BLO**. 27 *saxa nativis* [CEV] Oxf. **M**, *saxa sanativis* $AB^1$**H** (*xa* probably written above as a correction of *sasa*), *saxo sanativis* $B^2$ (cf. Quint. v 10. 21 piscium genera alia planis gaudent alia saxosis), *saxa sonativis* **L**. 29 *alludit* $G^1$**C** Reg.[2] Moser's D and E Dav. Heind. Sch. Mu., *eludit* MSS generally, *elludit* **N** Red. M of Moser, *illudit* Med.[1], *elidit* U El., *alluit* $G^2$, *cludit* **RO** Klotz Allen Or. Ba. after Victorius, see Comm.

101 videatur. Exin mari finitimus aër die et nocte distinguitur,
isque tum fusus et extenuatus sublime fertur, tum autem concretus in nubes cogitur umoremque colligens terram auget imbribus, tum effluens huc et illuc ventos efficit. Idem annuas frigorum et calorum facit varietates, idemque et volatus alitum sustinet et spiritu ductus alit et sustentat animantes. XL. Restat ultimus et a domiciliis nostris altissimus omnia cingens et coërcens caeli complexus, qui idem aether vocatur, extrema ora et determinatio mundi, in quo cum admirabilitate maxima
102 igneae formae cursus ordinatos definiunt. E quibus sol, cujus
magnitudine multis partibus terra superatur, circum eam ipsam volvitur, isque oriens et occidens diem noctemque conficit et modo accedens, tum autem recedens, binas in singulis annis reversiones ab extremo contrarias facit, quarum in intervallo tum quasi tristitia quadam contrahit terram, tum vicissim
103 laetificat, ut cum caelo hilarata videatur. Luna autem, quae
est, ut ostendunt mathematici, major quam dimidia pars terrae, isdem spatiis vagatur, quibus sol, sed tum congrediens cum sole, tum digrediens et eam lucem, quam a sole accepit, mittit in terras et varias ipsa lucis mutationes habet, atque etiam tum subjecta atque opposita soli radios ejus et lumen obscurat, tum ipsa incidens in umbram terrae, cum est e regione solis, interpositu interjectuque terrae repente deficit. Isdemque spatiis eae stellae, quas vagas dicimus, circum terram feruntur eodemque modo oriuntur et occidunt, quarum motus tum incitantur,
104 tum retardantur, saepe etiam insistunt. Quo spectaculo nihil
potest admirabilius esse, nihil pulchrius. Sequitur stellarum inerrantium maxima multitudo, quarum ita descripta distinctio est, ut ex notarum figurarum similitudine nomina invenerint, atque ita dimetata signa sunt, ut in tantis discriptionibus divina sollertia appareat. XLI. Atque hoc loco me intuens:

6 *spiritu* [BV[1]] Oxf. **M**, *spiritus* ACEV[2]**BH**+, cf. § 18. 14 *in intervallo* [ABCV]**B**, *intervallo* E Oxf.+. 15 *contrahit terram* MSS generally, *contrahitur terra* C**B**. 19 *digrediens* B[2]EUT**HMRV**, *degrediens* AB[1]CV Oxf. Or. Sch. Ba. 28 *descripta* [MSS] Or. Ba. Sch., *discripta* Mu. see Comm. 29 *notarum* X**BH**+, *nota* Oxf. **MCRV**, *notata* Sch. (cf. *Div.* II 146, *Orat.* I 109). 30 *atque ita—appareat* follows after *corpore Virgo* (§ 110) in all MSS and edd. see Comm. *dimetata* Gronov. Heind. Mu., *demetata* MSS (but *dimetati* § 156). *discriptionibus* ACV**L**, *descriptionibus* BE, cf. I 26.

Utar, inquit, carminibus Arati eis, quae a te admodum adulescentulo conversa ita me delectant, quia Latina sunt, ut multa ex iis memoria teneam. Ergo, ut oculis assidue videmus, sine ulla mutatione aut varietate

> cetera labuntur celeri caelestia motu
> cum caeloque simul noctesque diesque feruntur,

quorum contemplatione nullius expleri potest animus naturae **105** constantiam videre cupientis.

> Extremusque adeo duplici de cardine vertex
> dicitur esse polus.

Hunc circum Arctoe duae feruntur numquam occidentes.

> Ex his altera apud Graios Cynosura vocatur,
> altera dicitur esse Helice,

cujus quidem clarissimas stellas totis noctibus cernimus,

> quas nostri Septem soliti vocitare Triones.

Paribusque stellis similiter distinctis eundem caeli verticem **106** lustrat parva Cynosura:

> hac fidunt duce nocturna Phoenices in alto.
> Sed prior illa magis stellis distincta refulget
> et late prima confestim a nocte videtur,
> haec vero parva est, sed nautis usus in hac est;
> nam cursu interiore brevi convertitur orbe.

XLII. Et quo sit earum stellarum admirabilior aspectus,

> has inter, veluti rapido cum gurgite flumen,
> torvus Draco serpit subter superaque revolvens
> sese conficiensque sinus e corpore flexos.

Ejus cum totius *sit* praeclara species, in primis aspicienda est **107** figura capitis atque ardor oculorum:

> huic non una modo caput ornans stella relucet,
> verum tempora sunt duplici fulgore notata,

1 *Arati eis* X (by corr. in AB) Oxf. BLMO Heind. Allen, *Arateis* Moser's I and M edd. after Walker, see Comm. 11 *arctoe duae* E Oxf. G Asc., *arctoae duae* ABCVM, *arcto edue* B, ἄρκτοι Dav. Allen Sch. 12 *ex his* [BE], *ex iis* ACVB. 16 *distincta* Walker as in l. 19. 25 *superaque* Oxf. MR Priscian. XIV p. 980 Putsch, *supraque* MSS generally. 26 *flexo* Grotius. 27 *totius sit* Or. Ba. after Sch. *Op.* III p. 339, *totius est* MSS Allen Mu. *in primis* MSS Or. Ba. Sch., *tum in primis* Manutius Mu., *et in primis* Allen (who changes *cum* into *et* before *totius*).

e trucibusque oculis duo fervida lumina flagrant,
atque uno mentum radianti sidere lucet;
obstipum caput a tereti cervice reflexum;
obtutum in cauda Majoris figere dicas.

108 Et reliquum quidem corpus Draconis totis noctibus cernimus:

hoc caput hic paulum sese subito *aequore* condit,
ortus ubi atque obitus partim admiscentur in unam.

Id autem caput

attingens defessa velut maerentis imago
vertitur,

quam quidem Graeci

Engonasin vocitant, genibus quia nixa feratur.
Hic illa eximio posita est fulgore Corona.

Atque haec quidem a tergo, propter caput autem Anguitenens,

109 quem claro perhibent Ophiuchum *lu*mine Graii.
Hic pressu duplici palmarum continet Anguem,
atque ejus ipse manet religatus corpore torto;
namque virum medium serpens sub pectora cingit.
Ille tamen nitens graviter vestigia ponit
atque oculos urget pedibus pectusque Nepaï.

Septentriones autem sequitur

Arctophylax, vulgo qui dicitur esse Bootes,
quod quasi temoni adjunctam prae se quatit Arctum.

110 Huic Booti

subter praecordia fixa videtur
stella micans radiis, Arcturus nomine claro,

3 *a tereti* MSS generally, *e tereti* **R**, *tereti* Asc. El. 1 and 2 (reading *obstipumque* above) Dav. Heind., *at tereti* Madv. Or. Ba. Mu., *ac tereti* Sch. Klotz, *et tereti* Lamb. Allen. 6 *hoc, quod* Hyg. P. A. IV 3. *subito aequore condit* Or. Ba. Mu. after Grotius, *subitoque recondit* MSS generally Sch., *summo aequore condit* Dav. conj. 7 *partim—in unam* Klotz, *partim—in una* MSS generally, *partem—in unam* edd. after Lamb., *parte—in una* Hyg. **N** Heind. Allen. *admiscentur* [A]**NR** Hyg., *admiscetur* BCEV Oxf. **UBH**+Mu. 12 *engonasin* edd., *engonasiam* MSS generally. 15 *lumine* Ed., *nomine* MSS and edd. see Comm. 17 *atque ejus* MSS generally, *ejus et* by corr. in BT Allen. 23 *temoni* Madv. and edd., *temone* MSS. 24 after *Arctum* follow in most MSS and edd. *dein quae sequuntur*, which I have placed below after *Virgo*, Red. and Moser's O have *denique sequitur*, from which Heind. gets *dein quae sequitur*. *huic* Heind., *huic enim* MSS generally edd., *huic etenim* El. Med. Asc. **MCRV**, *huic autem* Dav., *et huic* Red.

cui subjecta fertur

spicum illustre tenens splendenti corpore Virgo.

XLIII. Dein, quae sequuntur.

Et natos Geminos invises sub caput Arcti.
Subjectus mediae est Cancer, pedibusque tenetur
magnus Leo tremulam quatiens e corpore flammam.

Auriga

sub laeva Geminorum obductus parte feretur.
Adversum caput huic Helicae truculenta tuetur.
At Capra laevum umerum clara obtinet.

[Tum, quae sequuntur :]

verum haec est magno atque illustri praedita signo,
contra Haedi exiguum jaciunt mortalibus ignem.

Cujus sub pedibus

corniger est valido conixus corpore Taurus.

Ejus caput stellis conspersum est frequentibus : 111

has Graeci stellas Hyadas vocitare suerunt,

[a pluendo ; ὕειν enim est pluere] nostri imperite Suculas, quasi a subus essent, non ab imbribus nominatae. Minorem autem Septentrionem Cepheus passis palmis *a* tergo subsequitur :

namque ips*e* ad tergum Cynosurae vertitur Arcti.

Hunc antecedit

obscura specie stellarum Cassiepia.
Hanc autem illustri versatur corpore propter

1 *cui* B by corr. **CR** Lamb. Heind. Or. Ba., *cujus pedibus* Dav. Klotz. Sch. Mu., *cujus* MSS generally, *cujus sub pedibus* Allen, but see Madv. *Fin.* II 48. 2 *spicum illustre ferens insigni corpore virgo* Serv. ad *Geo.* I 111. 3 *dein quae sequuntur* transposed from beginning of § in place of *atque ita—appareat* transposed to § 104. Ed. 5 *mediae est* edd. after Grotius, *media est* (= *mediaest*) MSS, cf. § 159. 9 *Helicae* edd. after Grotius, *Helice* or *Elicae* MSS generally, *Helices* Allen. 10 *clara* [ABE]G, *claro* CV**BH** Oxf.+. 11 *tum quae sequuntur* in brackets Ed., *tum quae* [E]**B**, *tumque* ABCV Oxf.+. 15 *conixus* (*conn*) **C** Lamb. Grotius Heind. edd., *conexus* ABC**B** Oxf. U, *connexus* EV**HMO**+, *convexus* Dav. Allen. 18 *a pluendo—pluere* MSS Sch., in brackets Or. Ba. Mu. after Gruter and Walker. 20 *a tergo* **C** Dav. edd., *terga* MSS generally, *tergo* G**R**. 21 *ipse* Dav. (to agree with the original) Heind. Or. Ba., *ipsum* MSS generally Sch. Mu., *ipsa* El. **MR**. *cynosurae* edd., *cynosura* MSS generally, *cynosyre* B. 22 *antecedit* here P recommences (no doubt the same as Gruter's Pal. which recommences also).

Andromeda aufugiens aspectum maesta parentis.
Huic Equus ille jubam quatiens fulgore micanti
summum contingit caput alvo, stellaque jungens
una tenet duplices communi lumine formas
aeternum ex astris cupiens conectere nodum.
Exin contortis Aries cum cornibus haeret;

quem propter

Pisces, quorum alter paulum praelabitur ante
et magis horriferis aquilonis tangitur auris.

112 XLIV. Ad pedes Andromedae Perseus describitur,

quem summa ab regione aquilonis flamina pulsant.

Cujus propter laevum genu

Vergilias tenui cum luce videbis.
Inde Fides posita et leviter convexa videtur.
Inde est ales Avis lato sub tegmine caeli.

Capiti autem Equi proxima *est* Aquarii dextra totusque deinceps Aquarius.

Tum gelidum valido de pectore frigus anhelans
corpore semifero magno Capricornus in orbe;
quem cum perpetuo vestivit lumine Titan,
brumali flectens contorquet tempore currum.

113 Hinc autem aspicitur,

1 *Andromeda aufugiens* VC Oxf. by corr. in A and B, *Andromeda haud fugiens* CPB, *Andromeda haut fugiens* E, *Andromada fugiens* Asc.+, *Andromede fugiens* G. Red. Heind., *Andromeda heu fugiens* Klotz. 9 *horriferis—auris*, *horrisonis—alis* Phaenom. 11 *ab* BE (all MSS of Phaen.) Sch. Mu., *a* Or. Ba., om. MSS generally Heind. Klotz. 12 *cujus propter laevum genu vergilias* CV Oxf. OU+, *cujus propter laeum genum v.* A, *at* (in ras., superscripto et rursus deleto *cujus*) *propter laevum genus omni ex parte locatas parvas verg.* B and (only reading *cujus* and *geny*) E (both evidently supplemented from Phaen. 27) Sch. Mu. 14 *posita et leviter* Hervag. Heind. Allen Sch.$^3$ Mu. Baehrens in Phaen., *posita leviter et* $A^1B^1$CEPV Oxf. LMOR+, *posita leviter* $A^2$BH+, *leviter posita et* $B^2$ MSS of Phaen. Or. Ba., *leviter positu* Orelli in Phaen., *positu leviter* Sch.$^2$. *convexa* ABCPV Oxf. BV, *connexa* EHILMOCR, *conversa* Bouh. 16 *proxima est* edd. after Klotz, *proximat* (for *proximast*) MSS generally, *proxima* GH Heind. Allen. 22 *hinc* [A] O, *hic* MSS generally Allen. *aspicitur ut* edd. after Victorius, *aspicitur* MSS generally, *aspicitur qui* G, om. $B^2$ Dav. Allen, (cf. Phaen. 77 *licebit visere nocte ut sese ostendens ostendat Scorpius alte* MSS, *l. v. n. ut sese ostendens emergit Scorpios alto* Baehrens, *l. v. n. ut sese emergens ostendat Scorpios alto* Or.).

*ut* sese ostendens emergit Scorpios alte
posteriore trahens flexum vi corporis Arcum;
quem propter nitens pinnis convolvitur Ales.
At propter se Aquila ardenti cum corpore portat.
Deinde Delphinus,
exinde Orion obliquo corpore nitens.
Quem subsequens 114
fervidus ille Canis stellarum luce refulget.
Post Lepus subsequitur
curriculum numquam defesso corpore sedans.
At Canis ad caudam serpens prolabitur Argo.
Hanc Aries tegit et squamoso corpore Pisces
Fluminis illustri tangentem *pect*ore ripas.
Quem longe serpentem et manantem aspicies
proceraque Vincla videbis
quae retinent Pisces caudarum a parte locata.
Inde Nepae cernes propter fulgentis acumen
Aram, quam flatu permulcet spiritus austri.
Propterque Centaurus
cedit equi partis properans subjungere Chelis.
Hic dextram porgens, quadrupes qua vasta tenetur,
tendit et illustrem truculentus caedit ad Aram.
Hic sese infernis e partibus erigit Hydra,
cujus longe corpus est fusum,
in medioque sinu fulgens Cratera relucet;
extremam nitens plumato corpore Corvus

1 *ostendens emergit* MSS generally, *emergens ostendit* Asc. (Heind. proposes to read *hic item aspicitur emergens*). 2 *flexum* [CEPV] A$^2$B$^2$ MSS of Phaen. Sch. Baehrens, *plexum* A$^1$B$^1$ Mus. Oxf. + Or. Ba. Mu. 3 *quam—pinna* Phaen. 9 *subsequitur* X Oxf. **B**+, *sequitur* **HNRVG** Red. Heind. Sch. 10 *defesso* MSS generally, *defecto* El. Heind. Allen. *sedans, servans* G Heind. 13 *illustri* MSS generally, *illustris* **LOVT** Dav. Allen Orelli in Phaen. 144. *tangentem, tangentes* B$^2$ Sch. *pectore* Heind. Allen Baehrens, *corpore* edd. MSS (from previous line, where G Red. + have *pectore;* there is a similar confusion in Phaen. 373 where Harl. 647 has *corpore* not, as wrongly stated in Ottley and Orelli, *pectore*). 20 *subjungere* MSS generally, *submergere* P**MR**+, *conjungere* MSS of Phaen. *Chelis* B Phaen., *cetis* MSS generally. 21 *porgens* [X]**BM**, *porrigens* Oxf. U**HLO**+. *qua vasta* AB, *qui austa* C**B**, *qua usta* EP**HLOT**, *qua justa* V (so I correct Or.'s 2nd P, as the reading agrees with Oxf.) Oxf. U**MCV**. 22 *caedit* BCV Allen Klotz (Orelli in Phaen. 213), *cedit* AEP (MSS of Phaen.) edd. Baehrens. 23 *infernis e* BCP**BHO**, *inferni se* V$^1$**MNCR**, *infernis he* A, *inferni de* V$^2$ Oxf., *infernis de* EG Asc. Heind. Allen Sch.

rostro tundit; et hic Geminis est ille sub ipsis
Antecanis, Προκύων Graio qui nomine fertur.

115 Haec omnis discriptio siderum atque hic tantus caeli ornatus ex corporibus huc et illuc casu et temere cursantibus potuisse effici cuiquam sano videri potest? aut vero aliqua natura mentis et rationis expers haec efficere potuit? quae non modo ut fierent ratione eguerunt, sed intellegi qualia sint sine summa ratione non possunt.

XLV. Nec vero haec solum admirabilia, sed nihil majus, quam quod ita stabilis est mundus atque ita cohaeret ad permanendum, ut nihil ne excogitari quidem possit aptius. Omnes enim partes ejus undique medium locum capessentes nituntur aequaliter. Maxime autem corpora inter se juncta permanent, cum quasi quodam vinculo circumdato colligantur; quod facit ea natura, quae per omnem mundum omnia mente et ratione conficiens funditur et ad medium rapit et convertit extrema.
116 Quocirca, si mundus globosus est ob eamque causam omnes ejus partes undique aequabiles ipsae per se atque inter se continentur, contingere idem terrae necesse est, ut omnibus ejus partibus in medium vergentibus (id autem medium infimum in sphaera est) nihil interrumpat, quo labefactari possit tanta contentio gravitatis et ponderum. Eademque ratione mare, cum supra terram sit, medium tamen terrae locum expetens conglobatur undique
117 aequabiliter neque redundat umquam neque effunditur. Huic autem continens aër fertur ille quidem levitate sublimis, sed tamen in omnes partes se ipse fundit; itaque et mari continuatus et junctus est et natura fertur ad caelum, cujus tenuitate et calore temperatus vitalem et salutarem spiritum praebet animantibus. Quem complexa summa pars caeli, quae aetheria dicitur, et suum retinet ardorem tenuem et nulla admixtione

1 *tundit* B$^2$C (*tundit* or *tondit* MSS of Phaen. 221), *tendit* MSS generally. 2 *Antecanis* B by corr. Lamb. Orelli in Phaen. (cf. Schol. in German. *Aratea* pp. 109, 170, 181, 225 Breysig), *anticanem* **PH**, *antecanem* Baehrens, *ante canem* MSS generally edd. see Comm. Προκύων, Lat. in MSS. 3 *discriptio* A edd. 5 *aliqua* A$^2$B by corr. Walker Klotz, *alia quae* [CPV] Oxf. **BHO** edd. (the corruption may have arisen from the word being divided so as to end the line with *ali*), *aliae quae* A$^1$, *alia qua* E, *quae alia* **UMCRV**, *alia quaedam* G Heind. 9 *majus*, *magis* Walker Heind. 25 *sublimis* B Dav. Heind. Allen Sch., *sublimi* (*s* lost before *sed*) MSS generally, *sublime* Or. Ba. Mu. see Comm.

concretum et cum aëris extremitate conjungitur. XLVI. In
aethere autem astra volvuntur, quae se et nisu suo conglobata
continent et forma ipsa figuraque sua momenta sustentant;
sunt enim rotunda, quibus formis, ut ante dixisse videor, minime
noceri potest. Sunt autem stellae natura flammeae; quocirca 118
terrae, maris, aquarum*que reliquarum* vaporibus aluntur iis,
qui a sole ex agris tepefactis et ex aquis excitantur, quibus
altae renovataeque stellae atque omnis aether refundunt eadem
et rursum trahunt indidem, nihil ut fere intereat aut admodum
paulum, quod astrorum ignis et aetheris flamma consumat. Ex
quo eventurum nostri putant id, de quo Panaetium addubitare
dicebant, ut ad extremum omnis mundus ignesceret, cum
umore consumpto neque terra ali posset nec remearet aër,
cujus ortus aqua omni exhausta esse non posset; ita relinqui
nihil praeter ignem, a quo rursum animante ac deo renovatio
mundi fieret atque idem ornatus oreretur. Nolo in stellarum 119
ratione multus vobis videri, maximeque earum, quae errare di-
cuntur; quarum tantus est concentus ex dissimillimis motibus,
ut, cum summa Saturni refrigeret, media Martis incendat, his
interjecta Jovis illustret et temperet, infraque Martem duae
Soli oboediant, ipse Sol mundum omnem sua luce compleat
ab eoque Luna illuminata graviditates et partus afferat
maturitatesque gignendi. Quae copulatio rerum et quasi
consentiens ad mundi incolumitatem coagmentatio naturae
quem non movet, hunc horum nihil umquam reputavisse
certo scio.

XLVII. Age, ut a caelestibus rebus ad terrestres veniamus, 120
quid est in his, in quo non naturae ratio intellegentis appareat?
Principio eorum, quae gignuntur e terra, stirpes et stabilitatem

2 *conglobata* G Probus ad *Ecl.* p. 17 edd. (cf. above §§ 98, 116), *globata* MSS generally (not found elsewhere before Pliny). 6 *aquarumque reliquarum vaporibus* Prob. l. c. Forch. p. 51, *aquarum vap.* MSS and edd. 8 *altae*, *per-altae* Prob. *refundunt* Hervag. edd., *effundunt* Prob. (*r* lost after *aether*), *refundat* MSS generally, *refundit* C, *effundat* Asc. *eadem*, *eodem* Lamb. 9 *trahunt* MSS generally, *trahat* **H**, *trahant* Asc. G. *indidem* A[1][BCEPV]+, *itidem* A[2] Prob. 10 *paulum* **MRV** Prob., *paululum* MSS generally Mu. *consumat* MSS generally, *consumant* E Prob., *consumit* Lamb. edd., *consumunt* Allen, see Comm. 19 *his* E Oxf. U**RV**, *iis* BPV[2] Or. Ba., *is* ACV[1]**B**. 24 *coagmentatio* [ACP] Oxf. **B**, *coaugm.* BE**HMO**+, *coacm.* V.

dant iis, quae sustinent, et e terra sucum trahunt, quo alantur ea, quae radicibus continentur, obducunturque libro aut cortice trunci, quo sint a frigoribus et caloribus tutiores. Jam vero vites sic claviculis adminicula, tamquam manibus, apprehendunt atque ita se erigunt, ut animantes. Quin etiam a caulibus, si propter sati sint, ut a pestiferis et nocentibus refugere dicuntur
**121** nec eos ulla ex parte contingere. Animantium vero quanta varietas est, quanta ad eam rem vis, ut in suo quaeque genere permaneat! Quarum aliae coriis tectae sunt, aliae villis vestitae, aliae spinis hirsutae; pluma alias, alias squama videmus obductas, alias esse cornibus armatas, alias habere effugia pinnarum. Pastum autem animantibus large et copiose natura eum, qui cuique aptus erat, comparavit. Enumerare possum, ad eum pastum capessendum conficiendumque quae sit in figuris animantium et quam sollers subtilisque discriptio partium quamque admirabilis fabrica membrorum. Omnia enim, quae quidem intus inclusa sunt, ita nata atque ita locata sunt, ut nihil eorum supervacaneum sit, nihil ad vitam retinendam non
**122** necessarium. Dedit autem eadem natura beluis et sensum et appetitum, ut altero conatum haberent ad naturales pastus capessendos, altero secernerent pestifera a salutaribus. Jam vero alia animalia gradiendo, alia serpendo ad pastum accedunt, alia volando, alia nando, cibumque partim oris hiatu et dentibus ipsis capessunt, partim unguium tenacitate arripiunt, partim aduncitate rostrorum, alia sugunt, alia carpunt, alia vorant, alia mandunt; atque etiam aliorum ea est humilitas, ut cibum ter-
**123** restrem rostris facile contingant; quae autem altiora sunt, ut anseres, ut cygni, ut grues, ut cameli, adjuvantur proceritate collorum; manus etiam data elephanto est, quia propter magni-

1 *iis quae.* Asc. Hervag. edd., *his quae* ABEPV, *hisque* C. *sustinent* AB**MV** Asc., *sustinentur* CEPV Oxf. **BHO**+Klotz. 5 *caulibus* Oxf. edd. after Dav., *caulibus brassicis* X**LO**+, *caul. brassicisque* **MRV**UT, *caul. et brass.* G. *si propter* [ABE]**HM**, *sipporter* (by corr. *si propter*) V, *sipportet* CP**B**, *si oportet* **LOC**, *propter* Oxf. 9 *permaneat* X Oxf. **BHLO** Madv. *Fin.* v 42, *permaneant* **MCRV**, cf. below § 127. 15 *discriptio* edd., *disscriptio* B, *descriptio* MSS generally. 18 *retinendam* **ILT** Heind. Allen Sch. Mu. (on *Fin.* I 33), *detinendam* MSS generally Or. Ba. 25 *alia vorant* om. Or. by error. 26 *ea est* BCE**B**, *eas et* APV Oxf. **MRV**. *humilitas* BCEV[1] Oxf., *humilatas* AP, *humiliatas* V[2]**LORV**. 29 *data elephanto est* **B** Or. Ba. Mu., *data elephantos* (for

tudinem corporis difficiles aditus habebat ad pastum. XLVIII. At quibus bestiis erat is cibus, ut alii generis bestiis vescerentur, aut vires natura dedit aut celeritatem. Data est quibusdam etiam machinatio quaedam atque sollertia, ut in araneolis aliae quasi rete texunt, ut, si quid inhaeserit, conficiant, aliae autem observant et ex inopinato, si quid incidit, arripiunt idque consumunt. Pina vero (sic enim Graece dicitur) duabus grandibus patula conchis cum parva squilla quasi societatem coit comparandi cibi, itaque, cum pisciculi parvi in concham hiantem innataverunt, tum admonita squillae morsu comprimit conchas. Sic dissimillimis bestiolis communiter cibus quaeritur. In quo **124**
admirandum est, congressune aliquo inter se an jam inde ab ortu natur*a* ips*a* congregatae sint. Est etiam admiratio non nulla in bestiis aquatilibus iis, quae gignuntur in terra; veluti crocodili fluviatilesque testudines quaedamque serpentes ortae extra aquam, simul ac primum niti possunt, aquam persequuntur. Quin etiam anitum ova gallinis saepe supponimus; e quibus pulli orti primo aluntur ab iis ut a matribus, a quibus exclusi fotique sunt, deinde eas relinquunt et effugiunt sequentes, cum primum aquam quasi naturalem domum videre potuerunt. Tantam ingenuit animantibus conservandi sui natura custodiam. XLIX. Legi etiam scriptum, esse avem quandam, quae platalea nominaretur; eam sibi cibum quaerere advolantem ad eas aves, quae se in mari mergerent; quae cum emersissent piscemque

*elephantost*) $AB^1V^1$, *data elephantis* $PV^2$**HMR** + Sch., *elephanto data est* C, *data elephanto* $B^2$, *d. elephanti* Oxf. 1 *habebat* X Oxf. +, *habebant* **H** Sch. 2 *alii generis bestiis* P, *aliis generis escis* $ABC^1$ (*alii* $C^2$) $BV^1$ (only reading *estis*), *alius generis bestiis* **HOL** Or. Ba. Sch., *alius generis escis* $V^2$ Oxf., *alicujus gen. escis* E, *aliis bestiis* Mu. 6 *observant et ex inopinato, si quid incidit* Allen, *ut ex inop. obs. et si* &c. ACE**B** Klotz and (reading *opinato* for *inop.*) B, (omitting *ut*) PV Oxf. **LMCV** edd. see Comm. 8 *coiit* conj. Mu. 10 *admonita squillae morsu* Sch., *adm. squilla pina morsu* BV (*squillae* having been corrupted to *squilla*, *pina* was added as a correction), *adm. squilla pinae morsu* Oxf. $V^2$+, *adm. squilla pina morsus* ACEP**B**, *adm. squillae morsu pina* Heind. n. Mu., *adm. a squilla pina morsu* Asc. **O** Or. (bracketing *pina*). Ba. (omitting *pina*). 13 *natura ipsa* edd. after Walker, *natura ipsae* A, *naturae ipsae* (or *-e -e*) BCEPV + Allen. 15 *crocodili* C (BC in § 129), *crocodilli* B, *corcodili* AEV (but AV *concordilos* § 129), *cocodrilli* PU Oxf. ($EPV^2$ in § 129). 17 *anitum* $AV^1$, *anetum* $BPV^2$ Oxf. **BI**, *anatum* CEU**THMO**, cf. Lach. Lucr. p. 16. 18 *primo* BCEPVG Oxf. **HLC**, *primum* [A]**BMO** Sch. 19 *exclusi* MSS, *excusi* Ba. cf. § 129.

cepissent, usque eo premere earum capita mordicus, dum illae captum amitterent, *in* quod ipsa invaderet. Eademque haec avis scribitur conchis se solere complere, easque cum stomachi calore concoxerit, evomere atque ita eligere ex iis, quae sunt
125 esculenta. Ranae autem marinae dicuntur obruere sese harena solere et moveri prope aquam, ad quas quasi ad escam pisces cum accesserint, confici a ranis atque consumi. Miluo est quoddam bellum quasi naturale cum corvo; ergo alter alterius ubicumque nanctus est ova frangit. Illud vero ab Aristotele animadversum, a quo pleraque, quis potest non mirari? grues cum loca calidiora petentes maria transmittant, trianguli efficere formam; ejus autem summo angulo aër ab iis adversus pellitur, deinde sensim † ab utroque latere, tamquam remis, ita pinnis cursus avium levatur. Basis autem trianguli, quem efficiunt grues, ea tamquam a puppi ventis adjuvatur, eaeque in tergo praevolantium colla et capita reponunt; quod quia ipse dux facere non potest, quia non habet, ubi nitatur, revolat, ut ipse quoque quiescat; in ejus locum succedit ex iis, quae acquierunt,
126 eaque vicissitudo in omni cursu conservatur. Multa ejus modi proferre possum, sed genus ipsum videtis. Jam vero illa etiam notiora, quanto se opere custodiant bestiae, ut in pastu circumspectent, ut in cubilibus delitiscant. L. Atque illa mirabilia, quod—ea quae nuper [id est paucis ante saeclis] medicorum ingeniis reperta sunt—vomitione canes, purgantes autem alvos ibes *se* Aegyptiae curant. Auditum est pantheras, quae in barbaria venenata carne caperentur, remedium quoddam habere, quo cum

2 *in quod* edd. after Walker, *id quod* MSS Allen Klotz, *idque* Madv. 3 *easque* E Oxf. **COV**, *eas* MSS generally. 10 *pleraque quis* AE, *plera quivis* C**B**, *pleraque vis* BPV Oxf. **HO**+. 12 [*ab iis*] Ba. after Kayser, *avibus* conj. Allen. 13 *sensim*, see Comm. 14 *quem* G edd. after Heind., *quam* MSS generally. 16 *ipsa dux—ipsa quoque* **C** Kayser. 17 *ubi nitatur* X Oxf. **B**+, *cui innitatur* G**H** Heind. Sch. 18 *succedit ex* MSS, *succ. proxima ex* Lamb., *una succedit ex* Sch. 22 *atque* MSS Mu., *at quam* Moser's La and Fa Or. Ba. Sch. 23 *id—saeclis* om. Cobet *V. L.* p. 462. 24 *purgantes* **ILO** Mars. Allen Madv. Or. Ba. Mu., *purgante* ABCV[1]G**BHR**, *purgatione* P+Dav. Sch., *purgare* V[2] Oxf. **MNV**, *purgantur* E, *purgatu* al. *alvos ibes* [P]V[2] Asc.+, *alvos ibis* CE**MR**, *alvo sibis* A, *alvo sibi* B**B**, *alvo sibes* Oxf., *alvos hibis* V[1]. 25 *se Aeg. curant* Heind. Allen, *Aeg. curant* MSS Sch. (cf. *Fam.* IV 5 § 5 *medici ipsi se curare non possunt*), *Aeg. curantur* Or. Ba. Mu. after Madv. 26 *caperentur* [BCP]A[2]**BL**, *carperentur* A[1]EV Oxf. U**HMO**+.

essent usae, non morerentur; capras autem in Creta feras, cum essent confixae ven*an*tis sagittis, herbam quaerere, quae dictamnus vocaretur, quam cum gustavissent, sagittas excidere [dicunt] e corpore. Cervaeque paulo ante partum perpurgant se 127
quadam herbula, quae seselis dicitur. Jam illa cernimus, ut contra vim et metum suis se armis quaeque defendant, cornibus tauri, apri dentibus, morsu leones; aliae fuga se, aliae occultatione tutantur, atramenti effusione sepiae, torpore torpedines, multae etiam insectantes odoris intolerabili foeditate depellunt.

LI. Ut vero perpetuus mundi esset ornatus, magna adhibita cura est a providentia deorum, ut semper essent et bestiarum genera et arborum omniumque rerum, quae a terra stirpibus continerentur. Quae quidem omnia eam vim seminis habent in se, ut ex uno plura generentur; idque semen inclusum est in intima parte earum bacarum, quae ex quaque stirpe funduntur, isdemque seminibus et homines affatim vescuntur et terrae ejusdem generis stirpium renovatione complentur. Quid loquar, 128
quanta ratio in bestiis ad perpetuam conservationem earum generis appareat? Nam primum aliae mares, aliae feminae sunt, quod perpetuitatis causa machinata natura est, deinde partes corporis et ad procreandum et ad concipiendum aptissimae, et in mare et in femina commiscendorum corporum mirae libidines. Cum autem in locis semen insedit, rapit omnem fere cibum ad sese eoque saeptum fingit animal; quod cum ex utero elapsum excidit, in iis animantibus, quae lacte aluntur, omnis fere cibus matrum lactescere incipit, eaque, quae paulo ante nata sunt, sine magistro duce natura mammas appetunt earumque ubertate saturantur. Atque ut intellegamus nihil horum esse fortuitum et haec omnia esse opera providae sollertisque

2 *venantis* Allen, *venenatis* MSS and edd. see Comm. 4 *dicunt*, in brackets Or. Ba., om. Bake Cobet. 6 *defendant* PVUHOC Heind. Mu., *defendat* [ABCE] Oxf. BM Or. Ba. Sch. 7 *morsu* [P]$V^{2}$M Asc., *cursu* ABCE$V^{1}$B+, *incursu morsu* Oxf. 9 *depellunt*, *repellunt* conj. Mu. (cf. *retinendam* § 121, and his n. on *Fin.* I 34 *depellendus*). 11 *et providentia* Bake. 22 *mare* BEP, *mari* ACV Or. Ba. ('mare scriptum est ap. Varr. *L. L.* IX 57, Val. Max. IV 6 § 1, Plin. saepius' Mu.). 24 *eoque saeptum fingit* MSS (except that $V^{1}$ Oxf. have *septum*, Moser's O *ceptum*) edd., *eoque coeptum fingit* Gruter Dav., *eoque conceptum fingitur* Heind., perhaps *ex eoque conceptum fingit*, see Comm. 25 *iis* [ACPV], *his* BE Oxf. U.

naturae, quae multiplices fetus procreant, ut sues, ut canes, iis mammarum data est multitudo; quas easdem paucas habent
129 eae bestiae, quae pauca gignunt. Quid dicam, quantus amor bestiarum sit in educandis custodiendisque iis, quae procreaverunt, usque ad eum finem, dum possint se ipsa defendere? etsi pisces, ut aiunt, ova cum genuerunt, relinquunt; facile enim illa aqua et sustinentur et fetum fundunt. LII. Testudines autem et crocodilos dicunt, cum in terra partum ediderint, obruere ova, deinde discedere; ita et nascuntur et educantur ipsa per sese. Jam gallinae avesque reliquae et quietum requirunt ad pariendum locum et cubilia sibi nidosque construunt eosque quam possunt mollissime substernunt, ut quam facillime ova serventur; e quibus pullos cum excuderunt, ita tuentur, ut et pinnis foveant, ne frigore laedantur, et, si est calor a sole, se opponant. Cum autem pulli pinnulis uti possunt, tum vola-
130 tus eorum matres prosequuntur, reliqua cura liberantur. Accedit etiam ad non nullorum animantium et earum rerum, quas terra gignit, conservationem et salutem hominum etiam sollertia et diligentia. Nam multae et pecudes et stirpes sunt, quae sine procuratione hominum salvae esse non possunt. Magnae etiam opportunitates ad cultum hominum atque abundantiam aliae aliis in locis reperiuntur. Aegyptum Nilus irrigat et, cum tota aestate obrutam oppletamque tenuit, tum recedit mollitosque et oblimatos agros ad serendum relinquit. Mesopotamiam fertilem efficit Euphrates, in quam quot ann*i*s quasi novos agros invehit. Indus vero, qui est omnium fluminum maximus, non aqua solum agros laetificat et mitigat, sed eos etiam conserit; magnam enim vim seminum secum frumenti similium dicitur
131 deportare. Multaque alia in aliis locis commemorabilia proferre possum, multos fertiles agros alios aliorum fructuum. LIII. Sed illa quanta benignitas naturae, quod tam multa ad vescen-

1 *iis* ACPV Oxf., *his* EU Sch. 3 *gignunt* [BEP]+, *gignuntur* $ACV^1$. 4 *iis* [B], *his* ACEPV Oxf. +. *procreaverint* **MRV** Herv. Allen. 6 *aiunt* Oxf. Mus. $V^2$, *alunt* X. 8 *crocodilos* see on § 124. 13 *excuderunt* $ABCPV^1O$, *excuderint* $EV^2TL$, *excluderunt* B, *excluserunt* UM + Allen Klotz, *excluserint* V marg. Oxf. 14 *pinnis—pinnulis* ACVB, *pennis—pennulis* BEP Oxf. 16 *accedit etiam* MSS Allen Klotz, *accedit* edd. after Ernesti. 18 *etiam* om. Klotz. 20 *possent* Allen. 25 *annis* Lamb. Heind. Allen, *annos* MSS and edd. see Comm.

dum, tam varia et tam jucunda gignit, neque ea uno tempore anni, ut semper et novitate delectemur et copia! Quam tempestivos autem dedit, quam salutares non modo hominum, sed etiam pecudum generi, iis denique omnibus, quae oriuntur e terra, ventos Etesias! quorum flatu nimii temperantur calores; ab isdem etiam maritimi cursus celeres et certi deriguntur. Multa praetereunda sunt [et tamen multa dicuntur]; enumerari 132
enim non possunt fluminum opportunitates, aestus maritimi [multum] accedentes et recedentes, montes vestiti atque silvestres, salinae ab ora maritima remotissimae, medicamentorum salutarium plenissimae terrae, artes denique innumerabiles ad victum et ad vitam necessariae. Jam diei noctisque vicissitudo conservat animantes tribuens aliud agendi tempus, aliud quiescendi. Sic undique omni ratione concluditur mente consilioque divino omnia in hoc mundo ad salutem omnium conservationemque admirabiliter administrari.

Sed quaeret quispiam, cujusnam causa tantarum rerum 133
molitio facta sit; arborumne et herbarum? quae quamquam sine sensu sunt, tamen a natura sustinentur. At id quidem absurdum est. An bestiarum? Nihilo probabilius deos mutorum et nihil intellegentium causa tantum laborasse. Quorum igitur causa quis dixerit effectum esse mundum? Eorum scilicet animantium, quae ratione utuntur. Hi sunt di et homines, quibus profecto nihil est melius; ratio est enim, quae praestet omnibus. Ita fit credibile deorum et hominum causa factum esse mundum quaeque in eo [mundo] sint omnia. LIV. Faciliusque intellegetur a dis immortalibus hominibus esse

1 *varia et tam* V² Oxf. El. Asc. +, *variae tam* AV¹, *varie tam* B, *varia tam* CEPG Heind. Klotz, *varia tamque* Sch. 6 *deriguntur* Mu. (*Adn. Cr.* p. v on *derecto*, cf. below § 152, *Div.* II 127, *R. P.* II 55), *diriguntur* MSS Or. Ba. Sch. 7 *et —dicuntur* in brackets Ba. Mu. (Fleck. *Jahrb.* for 1864 p. 135). 9 *multum* MSS, in brackets Or. Ba. Mu., *mutuo* La of Moser Heind. Klotz Sch., *tum* (*acc. tum rec.*) Lamb., *motu lunae* Kayser Vaucher (cf. *Div.* II 34), *cum luna simul* Allen (cf. *Div.* II 33). 11 *artes* MSS Allen Klotz, [*artes*] Or., *res* Moser Ba., *dotes* Sch., *utilitates* Mu. (cf. § 145), see Comm. 17 *sed quaeret* G, *sin quaeret* MSS generally Klotz Allen, *hic quaeret* C Mu., *hic quaerat* Reg. Walker Or. Ba. Sch. 20 *mutorum* G El. + Dav. Heind. Allen Sch., *mutarum* MSS generally Or. Ba. Mu. see Comm. 25 *ita fit—omnia* om. Vaucher. 26 *eo* ELO Mars. Red. Heind. edd., *eo mundo* MSS generally Allen. 27 *intellegetur* GR edd., *intellegitur* MSS generally.

provisum, si erit tota hominis fabricatio perspecta omnisque
134 humanae naturae figura atque perfectio. Nam cum tribus rebus animantium vita teneatur, cibo, potione, spiritu, ad haec omnia percipienda os est aptissimum, quod adjunctis naribus spiritu augetur; dentibus autem in ore constrictis manditur atque ab iis extenuatur et molitur cibus. Eorum adversi [acuti] morsu dividunt escas, intimi autem conficiunt, qui genuini vocantur, quae confectio etiam a lingua adjuvari videtur.
135 Linguam autem ad radices ejus haerens excipit stomachus, quo primum illabuntur ea, quae accepta sunt *ore.* Is utraque ex parte tonsillas attingens palato extremo atque intimo terminatur, atque agitatione et motibus linguae cum de*lap*sum et quasi detrusum cibum accepit, depellit. Ipsius autem partes eae, quae sunt infra quam id, quod devoratur, dilatantur, quae autem
136 supra, contrahuntur. Sed cum aspera arteria (sic enim a medicis appellatur) ostium habeat adjunctum linguae radicibus paulo supra, quam ad linguam stomachus adnectitur, eaque ad pulmones usque pertineat excipiatque animam, eam quae ducta est spiritu, eandemque a pulmonibus respiret et reddat, tegitur quodam quasi operculo, quod ob eam causam datum est, ne, si quid in eam cibi forte incidisset, spiritus impediretur. Sed cum alvi natura subjecta stomacho cibi et potionis sit receptaculum, pulmones autem et cor extrinsecus spiritum *addant,* in alvo multa sunt mirabiliter effecta; quae constat fere e nervis, est autem multiplex et tortuosa arcetque et continet, sive illud

4 *quod—spiritu augetur, quo—spiritus hauritur* conj. Vaucher. 5 *constrictis* V Oxf. **MCR** Vaucher, *constructis* [ABCEP]**BLO** edd., *constitutis* **H**G El. see Comm. *mandatur* conj. Allen (cf. Lucr. II 637, Attius ap. *Tusc.* IV 77). 6 *atque ab iis extenuatur* MSS generally (*his* for *iis* BE+), *atque ext. ab iis* Oxf., *atque ext.* Ba., *ab his atque ext.* Sch. *molitur* B**LO**, *mollitur* ACEPV**B** Oxf.+. *acuti* in brackets Ed., *acuto* UT**O**, see Comm. 10 *sunt ore. Is* edd. after Manut., *sunt. Oris* MSS Allen, *sunt, et oris* Hervag. 11 *terminatur atque* Forch. Kayser, *terminatur. Atque is* (or *his*) MSS edd. 12 *delapsum* Ed., *depressum* conj. Heind., *depulsum* MSS and edd. see Comm. 13 *itidem depellit* conj. Allen, *depellit inferius* Heind., perhaps *denuo ipse dep.* 17 *eaque ad* [BEP] Oxf. **BO**, *ea quae ad* ACV. 19 *est* edd. after Klotz, *sit* MSS. 20 *ne si quid in eam* [AEP]**BHO** and (reading *quod* for *quid*) BC, *nisi quod si in eam* **VMV** and (reading *quid* for *quod*) Oxf. 23 *addant* Ed., *ducant* ABC**B** Or. Ba. Mu., *adducant* PVG Oxf. **HLMCV**+Heind. Sch., *abducant* E. 24 *constat* [CP]**B**, *constant* ABEV Oxf.+.

aridum est sive umidum, quod recepit, ut id mutari et concoqui possit; eaque tum astringitur, tum relaxatur atque omne, quod accepit, cogit et confundit, ut facile et calore, quem multum habet, et terendo cibo et praeterea spiritu omnia cocta atque confecta in reliquum corpus dividantur. LV. In pulmonibus autem inest raritas quaedam et assimilis spongiis mollitudo ad hauriendum spiritum aptissima, qui tum se contrahunt aspirantes, tum in *respiratu* dilatant, ut frequenter ducatur cibus animalis, quo maxime aluntur animantes. Ex intestinis autem **137**
secretus a reliquo cibo sucus is, quo alimur, permanat ad jecur per quasdam a medio intestino usque ad portas jecoris (sic enim appellantur) ductas et derectas vias, quae pertinent ad jecur eique adhaerent. Atque inde aliae *alio* pertinentes sunt, per quas cadit cibus a jecore dilapsus. Ab eo cibo cum est secreta bilis iique umores, quae renibus profunduntur, reliqua se in sanguinem vertunt ad easdemque portas jecoris confluunt, ad quas omnes ejus viae pertinent; per quas lapsus cibus in hoc ipso loco in eam venam, quae cava appellatur, confunditur perque eam ad cor confectus jam coctusque perlabitur, a corde autem in totum corpus distribuitur per venas admodum multas in omnes partes corporis pertinentes. Quem ad modum autem **138**
reliquiae cibi depellantur tum astringentibus se intestinis, tum relaxantibus, haud sane difficile dictu est, sed tamen praetereundum est, ne quid habeat injucunditatis oratio. Illa potius explicetur incredibilis fabrica naturae: nam quae spiritu in pulmones anima ducitur, ea calescit primum ipso ab spiritu,

1 *recepit* [AB]**L**, *recipit* CEPV Oxf. +. 3 *accepit* [AB¹EV]**BH** Oxf. +, *accipit* B²CP +. *calore* [BC] Oxf. **M**, *calorem* AEPV. 4 *et terendo cibo* MSS generally, *et terendo* Or. Ba. after Madv., *exterendo cibo* **LOV** +, *ex terendo c.* Heind., *atterendo c.* Moser's M, *in terendo c.* Gruter's Pal. 3. 8 *in respiratu* Klotz Sch. Mu. after Lamb., *in re spiritu* ABCPV¹**B**, *in respiram* E, *se spiritu* V²**UHMCR** +, *spiritu se* Oxf., *se in spiritu* **TIL**, *intrante spiritu* Or. Ba. after Madv. 9 *autem* G edd. after Dav., *autem alvo* MSS generally (perhaps from *aluntur* above), *alvo autem* Oxf., *autem et alvo* **HIN**. 12 *appellantur* MSS generally, *appellant* U Asc. Klotz. *derectas* Mu., *directas* MSS and edd. *ad jecur eique* BCV Oxf. **BM**, *ad jecorique* A, *jecorique* **EPLO** +. 13 *aliae alio pert.* Sch. Ba. Mu. after Heind., *aliae pert.* MSS Allen, *aliae ad renes pert.* Lamb. Vaucher, *aliae...pert.* Klotz Or. 19 *coctusque* V Walker edd., *coactusque* MSS generally, *concoctusque* Madv. *Fin.* p. 254¹.

deinde contagione pulmonum, ex eaque pars redditur respirando, pars concipitur cordis parte quadam, quem ventriculum cordis appellant, cui similis alter adjunctus est, in quem sanguis a jecore per venam illam cavam influit; eoque modo ex his partibus et sanguis per venas in omne corpus diffunditur et spiritus per arterias. Utraeque autem crebrae multaeque toto corpore intextae vim quandam incredibilem artificiosi operis

139 divinique testantur. Quid dicam de ossibus? quae subjecta corpori mirabiles commissuras habent et ad stabilitatem aptas et ad artus finiendos accommodatas et ad motum et ad omnem corporis actionem. Huc adde nervos, a quibus artus continentur, eorumque implicationem corpore toto pertinentem, qui sicut venae et arteriae a corde tractae et profectae in corpus omne

140 ducuntur. LVI. Ad hanc providentiam naturae tam diligentem tamque sollertem adjungi multa possunt, e quibus intellegatur, quantae res hominibus a dis quamque eximiae tributae sint. Qui primum eos humo excitatos celsos et erectos constituerunt, ut deorum cognitionem caelum intuentes capere possent. Sunt enim ex terra homines, non ut incolae atque habitatores, sed quasi spectatores superarum rerum atque caelestium, quarum spectaculum ad nullum aliud genus animantium pertinet. Sensus autem interpretes ac nuntii rerum in capite tamquam in arce mirifice ad usus necessarios et facti et collocati sunt. Nam oculi tamquam speculatores altissimum locum obtinent, ex

141 quo plurima conspicientes fungantur suo munere; et aures, cum sonum percipere debeant, qui natura in sublime fertur, recte in altis corporum partibus collocatae sunt; itemque nares et, quod omnis odor ad supera fertur, recte sursum sunt et, quod cibi et potionis judicium magnum earum est, non sine causa vicinitatem oris secutae sunt. Jam gustatus, qui sentire eorum,

1 *contagione* [ABCEP]BLO, *coagitatione* V Oxf. UHM+. 2 *quem* Asc. V edd. after Klotz, *quam* MSS. *ventriculum* [BCE] Oxf., *venterculum* APV. 4 *his* [BE] edd., *iis* ACPV Oxf. 10 *finiendos* MSS, *fingendos* Heind. 13 *tractae et profectae* MSS Allen, *tracti et profecti* Asc. Herv. edd. 16 *a dis* MSS, in brackets Sch. (who conjectures *ab ea*) Ba. Mu., *a deo* Lamb. Dav. Allen. 17 *quae* Hervag. Vict. edd., *qui* MSS Heind. Allen. *constituerunt* C$^2$GO Heind., *constituit* MSS generally. 19 *e terra* Sch. 26 *in sublime* MSS Klotz Allen, [*in*] *sublime* Sch. Mu., *sublime* Or. Ba. (cf. §§ 44, 101). 27 *et quod* ABCPV Oxf. B+, *eo quod* EILOV Allen Klotz Sch.

quibus vescimur, genera deberet, habitat in ea parte oris, qua
esculentis et potulentis iter natura patefecit. Tactus autem
toto corpore aequabiliter fusus est, ut omnes ictus omnesque
minimos et frigoris et caloris appulsus sentire possimus. Atque
ut in aedificiis architecti avertunt ab oculis naribusque domino-
rum ea, quae profluentia necessario taetri essent aliquid habitura,
sic natura res similes procul amandavit a sensibus. LVII. Quis 142
vero opifex praeter naturam, qua nihil potest esse callidius,
tantam sollertiam persequi potuisset in sensibus? Quae primum
oculos membranis tenuissimis vestivit et saepsit; quas primum
perlucidas fecit, ut per eas cerni posset, firmas autem, ut con-
tinerentur; sed lubricos oculos fecit et mobiles, ut et declinarent,
si quid noceret, et aspectum, quo vellent, facile converterent.
Aciesque ipsa, qua cernimus, quae pupula vocatur, ita parva est.
ut ea, quae nocere possint, facile vitet; palpebraeque, quae sunt
tegmenta oculorum, mollissimae tactu, ne laederent aciem, aptis-
sime factae *sunt* et ad claudendas pupulas, ne quid incideret, et
ad aperiendas; idque providit ut identidem fieri posset cum
maxima celeritate. Munitaeque sunt palpebrae tamquam vallo 143
pilorum, quibus et apertis oculis, si quid incideret, repelleretur, et
somno coniventibus, cum oculis ad cernendum non egeremus, †ut
qui tamquam involuti quiescerent. Latent praeterea utiliter et
excelsis undique partibus saepiuntur. Primum enim superiora
superciliis obducta sudorem a capite et fronte defluentem repel-
lunt; genae deinde ab inferiore parte tutantur subjectae leniter-
que eminentes; nasusque ita locatus est, ut quasi murus oculis
interjectus esse videatur. Auditus autem semper patet; ejus 144

1 *deberet* MSS generally Allen, *debet* G Red. **ILNO** Asc. edd. 4 *minimos* Thanner Moser edd., *miñios* E, *minios* **V**, *nimios* MSS generally. *possimus* MSS and edd., *possemus* Red. Heind. (cf. § 150). 10 *primum* om. Lamb. Walker Heind., in brackets Ba. 11 *continerentur* MSS generally, *continerent* U Lamb. Dav. 16 *aptissime factae sunt* G, om. *sunt* MSS and edd. (*aptissimae* in AC), *et apt. fact. sunt* Heind., *aptissimaeque f. s.*? 21 *coniventibus* [PV] Oxf. **M**, *conluentibus* ABCE**BH**, *confluentibus* **LNO**. *ut qui* MSS generally Or., om. Isidor. *Orig.* XI 1. 39 Ernesti Heine (*Qu. Tull.* p. 12), in brackets Ba., obel. Mu., *utque* CG, [*ut que*] Sch. who suggests *conivente*s (sc. *oculi*) above, *utqui* (=*ut*) Swainson, *ut* **O** Herv., *qui* **B**, *qui ut* U, *ut ii* Dav., *utique* Bouh. Allen, *culcita* Tittler (*N. Jahrb.* 1869 p. 498) see Comm. 25 *leniterque* edd. after Walker, *leviterque* MSS Allen. 26 *nasusque ita* CG**BO**, *nasus itaque* MSS generally.

enim sensu etiam dormientes egemus; a quo cum sonus est acceptus, etiam e somno excitamur. Flexuosum iter habet, ne quid intrare possit, si simplex et derectum pateret; provisum etiam, ut, si qua minima bestiola conaretur ir*re*pere, in sordibus aurium tamquam in visco inhaeresceret. Extra autem eminent quae appellantur aures et tegendi causa factae tutandique sensus, et ne adjectae voces laberentur atque errarent, prius quam sensus ab iis pulsus esset. Sed duros et quasi corneolos habent introitus multisque cum flexibus, quod his naturis relatus amplificatur sonus; quocirca et in fidibus testudine resonatur aut cornu, et ex tortuosis locis et inclusis *soni* referuntur
**145** ampliores. Similiter nares, quae semper propter necessarias utilitates patent, contractiores habent introitus, ne quid in eas, quod noceat, possit pervadere, umoremque semper habent ad pulverem multaque alia depellenda non inutilem. Gustatus praeclare saeptus est; ore enim continetur et ad usum apte et ad incolumitatis custodiam. Omnisque sensus hominum multo antecellit sensibus bestiarum. LVIII. Primum enim oculi in iis artibus, quarum judicium est oculorum, in pictis, fictis caelatisque formis, in corporum etiam motione atque gestu multa cernunt subtilius; colorum *enim* et figurarum [tum] venustatem atque ordinem et, ut ita dicam, decentiam oculi judicant, atque etiam alia majora. Nam et virtutes et vitia cognoscunt; iratum propitium, laetantem dolentem, fortem ignavum, audacem
**146** timidumque [cognoscunt]. Auriumque item est admirabile quoddam artificiosumque judicium, quo judicatur et in vocis et in tibiarum nervorumque cantibus varietas sonorum, intervalla, distinctio et vocis genera permulta, canorum fuscum, leve asperum, grave acutum, flexibile durum, quae hominum solum auribus judicantur. Nariumque item et gustandi [et parte

3 *derectum* Mu. (cf. §§ 137, 131), *directum* MSS and edd. 4 *irrepere* Heind. after Puteanus, *irrumpere* MSS and edd. 8 *ab iis* Or. Ba. Mu., *ab his* MSS Sch. 11 *soni* C Lamb., om. MSS generally Allen. 17 *omnisque* [ACPV²] Oxf. HM, *omnesque* BEV¹O. 18 *antecellit* MSS generally, *antecellunt* B. 21 *enim* Ed. after Heind., *etiam* MSS and edd. see Comm. *figurarum tum* MSS, *figurarum* [*tum*] Or. Ba. Sch. after Lamb., *figurarum...tum* Mu., *fig. uni* Allen (Nonius p. 203 gives *colorum—judicant* as the MSS, showing the antiquity of the corruption). 25 *cognoscunt* bracketed by Ba. 28 *canorum, candidum* Dav. Heind. 30 *et parte tangendi* ABEPUTHL, obel. Or. Mu., om.

tangendi] magna judicia sunt. Ad quos sensus capiendos et perfruendos plures etiam, quam vellem, artes repertae sunt. Perspicuum est enim, quo compositiones unguentorum, quo ciborum conditiones, quo corporum lenocinia processerint.

LIX. Iam vero animum ipsum mentemque hominis, ra- 147
tionem, consilium, prudentiam qui non divina cura perfecta esse perspicit, is his ipsis rebus mihi videtur carere. De quo dum disputarem, tuam mihi dari vel*le*m, Cotta, eloquentiam. Quo enim tu illa modo diceres! quanta primum intellegentia, deinde consequentium rerum cum primis conjunctio et comprehensio esset in nobis; ex quo videlicet, quid ex quibusque rebus efficiatur, idque ratione concludimus, singulasque res definimus circumscripteque complectimur; ex quo scientia intellegitur quam vim habeat qualis*que* sit, qua ne in deo quidem est res ulla praestantior. Quanta vero illa sunt, quae vos Academici infirmatis et tollitis, quod et sensibus et animo ea, quae extra sunt, percipimus atque comprehendimus! ex quibus collatis inter 148
se et comparatis artes quoque efficimus, partim ad usum vitae, partim ad oblectationem necessarias. Jam vero domina rerum, ut vos soletis dicere, eloquendi vis, quam est praeclara quamque divina! quae primum efficit, ut et ea, quae ignoramus, discere et ea, quae scimus, alios docere possimus; deinde hac cohortamur, hac persuademus, hac consolamur afflictos, hac deducimus perterritos a timore, hac gestientes comprimimus, hac cupiditates iracundiasque restinguimus, haec nos juris, legum, urbium societate devinxit, haec a vita immani et fera segregavit. Ad usum autem orationis incredibile est, si diligenter atten- 149

**CB, *et arte tangendi* V in corr. Vict. Gruter Ba. (who compares *arte complecti Div.* I 103), *arte et t.* Oxf. M +, *pariter et t.* Dav. Ern. Sch., *et pariter t.* G Maff. Lamb. Heind., *et aperte t.* V Manut., *et perite t.* Gul., *et certe t.* Vaucher, *partium et t.* conj. Mu. see Comm.**

**7 *is his* [EPV] A¹ Oxf., *his* A²BCBCVTG Red. 8 *disputarem* MSS generally, *disputem* Ernesti Klotz. *vellem* N Red. Lamb. edd., *velim* MSS generally Allen Klotz. 11 *esset, est* Forchh. *quo, qua* conj. Kayser. *videlicet* [ACPV] Oxf. BO, *videmus* BE +, *videbis* H, see Comm. 12 *idque ratione* [BCEP], bracketed by Or. Ba. Sch., *idque rationem* AV Oxf. H, *et qua ratione* conj. Sch. 14 *qualisque sit* Mu. after Moser, *qualis sit* MSS, *et qualis sit* Sch., om. Schütz, in brackets Or. Ba. (cf. *easque* § 124). 27 *si* edd. after Kindervater and Madv., *nisi* MSS generally Allen, *ubi* G Red. NR Heind. Klotz.**

deris, quanta opera machinata natura sit. Primum enim a pulmonibus arteria usque ad os intimum pertinet, per quam vox principium a mente ducens percipitur et funditur; deinde in ore sita lingua est finita dentibus; ea vocem immoderate profusam fingit et terminat, atque sonos vocis distinctos et pressos efficit, cum et ad dentes et ad alias partes pellit oris. Itaque plectri similem linguam nostri solent dicere, chordarum dentes, nares cornibus iis, qui ad nervos resonant in cantibus.

150 LX. Quam vero aptas quamque multarum artium ministras manus natura homini dedit! Digitorum enim contractio facilis facilisque porrectio propter molles commissuras et artus nullo in motu laborat. Itaque ad pingendum, fingendum, scalpendum, ad nervorum eliciendos sonos, ad tibiarum apta manus est admotione digitorum. Atque haec oblectationis; illa necessitatis, cultus dico agrorum exstructionesque tectorum, tegumenta corporum, vel texta vel suta, omnemque fabricam aeris et ferri; ex quo intellegitur, ad inventa animo, percepta sensibus adhibitis opificum manibus, omnia nos consecutos, ut tecti, ut vestiti, ut salvi esse possemus, urbes, muros, domicilia, delubra haberemus.
151 Jam vero operibus hominum, id est manibus, cibi etiam varietas invenitur et copia. Nam et agri multa efferunt manu quaesita, quae vel statim consumantur vel mandentur condita vetustati, et praeterea vescimur bestiis et terrenis et aquatilibus et volantibus partim capiendo, partim alendo. Efficimus etiam domitu nostro quadripedum vectiones, quorum celeritas atque vis nobis ipsis affert vim et celeritatem. Nos onera quibusdam bestiis, nos juga imponimus, nos elephantorum acutissimis sensibus,

3 *percipitur* MSS, *projicitur* Dav., *recipitur* or *excipitur* Heind., *percietur* Sch. 4 *finita* MSS Nonius p. 309, *munita* Sch. see Comm. 5 *terminat atque* edd. after Dav., *terminat quae* ABCPV + Heind. Allen, *terminatque* EO. 8 *iis qui* edd., *his qui* MSS generally, *iis quae* G Heind., *his quae* Hervag., *his quia* Oxf. 10 *facilis* [ABPV] Oxf. O, om. CEBH +. 12 *fingendum* ABCVG Mus. Oxf. UT Heind., *ad fingendum* P edd., om. E. *scalpendum* CR Heind., *sculpendum* G, *ad scalp.* MSS generally edd. 13 *ad tibiarum* ABCE$V^1$ + Allen, *ac tibiarum* P$V^2$ Oxf. MO edd. 14 *admotione* $B^2$CP$V^2$ Oxf., *ad motionem* AE$V^1$, *admonitione* $B^1$V. 18 *opificibus*, *opificum* Walker Heind. 19 *possemus* CGB edd. after Lamb., *possimus* $A^2$BEPV Oxf. U + Allen, *possumus* $A^1$ Red. 20 *operibus* MSS (by corr. fr. *opibus* B), *operis* Lamb. Ba. see Comm. 23 *volantibus* [ABCPV]BC, *volatilibus* E + Sch.

nos sagacitate canum ad utilitatem nostram abutimur, nos e terrae cavernis ferrum elicimus, rem ad colendos agros necessariam, nos aeris, argenti, auri venas penitus abditas invenimus et ad usum aptas et ad ornatum decoras, arborum autem consectione omnique materia et culta et silvestri partim ad calficiendum corpus igni adhibito et ad mitigandum cibum utimur, partim ad aedificandum, ut tectis saepti frigora caloresque pellamus. Magnos vero usus affert ad navigia fa- 152
cienda, quorum cursibus suppeditantur omnes undique ad vitam copiae; quasque res violentissimas natura genuit, earum moderationem nos soli habemus, maris atque ventorum, propter nauticarum rerum scientiam, plurimisque maritimis rebus fruimur atque utimur. Terrenorum item commodorum omnis est in homine dominatus. Nos campis, nos montibus fruimur, nostri sunt amnes, nostri lacus, nos fruges serimus, nos arbores, nos aquarum inductionibus terris fecunditatem damus, nos flumina arcemus, derigimus, avertimus, nostris denique manibus in rerum natura quasi alteram naturam efficere conamur.

LXI. Quid vero? hominum ratio non in caelum usque 153
penetravit? Soli enim ex animantibus nos astrorum ortus, obitus cursusque cognovimus; ab hominum genere finitus est dies, mensis, annus, defectiones solis et lunae cognitae praedictaeque in omne posterum tempus, quae, quantae, quando futurae sint. Quae contuens animus *accedit* ad cognitionem deorum, e qua oritur pietas, cui conjuncta justitia est reliquaeque virtutes, e quibus vita beata exsistit par et similis deorum, nulla alia re nisi immortalitate, quae nihil ad bene vivendum pertinet, cedens caelestibus. Quibus rebus expositis satis docuisse videor, hominis natura quanto omnes anteiret animantes. Ex quo debet

2 *elicimus* MSS, *eligimus* Mu. see Comm. 5 *consectione* $V^2$ Oxf. M Herv. Lamb., *confectione* BLOV +, *confectionem* ACEP$V^1$B +, *consectionem* H. 6 *calficiendum* ACPV, *cal faciendum* B, *calfaciendum* Oxf. Herv., *calefaciendum* EHLVUT + Sch., *caleficiendum* BC. 7 *ad aedificandum* [B]O, *et ad aedif.* ACEPVB Oxf. U +. 17 *derigimus* $B^1$ Mu., *dirigimus* MSS generally Or. Ba. Sch. (cf. § 131). 22 *praedictaeque* Asc. ILOV, *praedicataeque* X Oxf. BH +. 24 *accedit ad cognitionem* Or. Ba. Mu. after Dav., *accidit ad cogn.* Pithoeus, *accipit ad cogn.* $A^1$BCEP$V^1$UH, *accipit cogn.* $A^2$, *accepit cogn.* LO, *accipit ab iis cogn.* $V^2$, *accipit ab his cogn.* Oxf. MRV Asc. Sch., *accepit ab his cogn.* Red. CN.

intellegi nec figuram situmque membrorum nec ingenii mentisque vim talem effici potuisse fortuna.

154 Restat, ut doceam, atque aliquando perorem, omnia, quae sint in hoc mundo, quibus utantur homines, hominum causa facta esse et parata. LXII. Principio ipse mundus deorum hominumque causa factus est, quaeque in eo sunt, ea parata ad fructum hominum et inventa sunt. Est enim mundus quasi communis deorum atque hominum domus aut urbs utrorumque. Soli enim ratione utentes jure ac lege vivunt. Ut igitur Athenas et Lacedaemonem Atheniensium Lacedaemoniorumque causa putandum est conditas esse, omniaque, quae sint in his urbibus, eorum populorum recte esse dicuntur, sic, quaecumque sunt in omni mundo, deorum atque hominum putanda sunt.

155 Jam vero circumitus solis et lunae reliquorumque siderum, quamquam etiam ad mundi cohaerentiam pertinent, tamen et spectaculum hominibus praebent; nulla est enim insatiabilior species, nulla pulchrior et ad rationem sollertiamque praestantior; eorum enim cursus dimetati maturitates temporum et varietates mutationesque cognovimus; quae si hominibus solis nota sunt, hominum facta esse causa judicandum est.

156 Terra vero feta frugibus et vario leguminum genere, quae cum maxima largitate fundit, ea ferarumne an hominum causa gignere videtur? Quid de vitibus olivetisque dicam? quarum uberrimi laetissimique fructus nihil omnino ad bestias pertinent. Neque enim serendi neque colendi nec tempestive demetendi percipiendique fructus neque condendi ac reponendi ulla pecudum scientia est, earumque omnium rerum hominum
157 est et usus et cura. LXIII. Ut fides igitur et tibias eorum causa factas dicendum est, qui illis uti possent, sic ea, quae dixi, iis solis confitendum est esse parata, qui utuntur, nec,

6 *quaeque—inventa sunt* in brackets Heind. Or. Ba. Sch. see Comm. 20 *hominum facta esse causa* [X]**B**G Oxf., *h. c. f. e.* U**TN** Red. Heind. Sch., *h. e. f. c.* **RV**, *h. c. e. f.* **C**. 22 after *cum maxima* follow in ACV Oxf. §§ 16—86 *etenim si di—quae efferant aliquid*, in BE §§ 15—86 *tam multarum—aliquid*, in P §§ 16—68 *etenim—Dianam autem*, see on § 16. There is a gap in P from this point to § 162. 29 *possent* [ABCEP$V^1$]**BH**, *possunt* $V^2$ Oxf. U**V** Heind. Allen, *possint* G, *potuerunt* LOT. 30 *dixi iis* C$V^2$G**B**+, *dixi is* B$A^1V^1$, *dixi his* $A^2$E**H**, *diximus* Oxf. U Heind. Allen.

si quae bestiae furantur aliquid ex iis aut rapiunt, illarum quoque causa ea nata esse dicemus. Neque enim homines murum aut formicarum causa frumentum condunt, sed conjugum et liberorum et familiarum suarum. Itaque bestiae furtim, ut dixi, fruuntur, domini palam et libere. Hominum 158
igitur causa eas rerum copias comparatas fatendum est, nisi forte tanta ubertas et varietas pomorum eorumque jucundus non gustatus solum, sed odoratus etiam et aspectus dubitationem affert, quin hominibus solis ea natura donaverit. Tantumque abest, ut haec bestiarum etiam causa parata sint, ut ipsas bestias hominum gratia generatas esse videamus. Quid enim oves aliud afferunt, nisi ut earum villis confectis atque contextis homines vestiantur? quae quidem neque ali neque sustentari neque ullum fructum edere ex se sine cultu hominum et curatione potuissent. Canum vero tam fida custodia tamque amans dominorum adulatio tantumque odium in externos et tam incredibilis ad investigandum sagacitas narium, tanta alacritas in venando, quid significat aliud nisi se ad hominum commoditates esse generatos? Quid de bubus loquar? quorum 159
ipsa terga declarant non esse se ad onus accipiendum figurata; cervices autem natae ad jugum, tum vires umerorum et latitudines ad aratra extrahenda. Quibus cum terrae subigerentur fissione glebarum, ab illo aureo genere, ut poëtae loquuntur, vis nulla umquam afferebatur.

Ferrea tum vero proles exorta repente est
ausaque funestum prima est fabricarier ensem
et gustare manu vinctum domitumque juvencum.

Tanta putabatur utilitas percipi e bubus, ut eorum visceribus vesci scelus haberetur. LXIV. Longum est mulorum persequi utilitates et asinorum, quae certe ad hominum usum paratae

3 *murum* N Red. Charisius p. 137 K, *murium* MSS Heind. Allen. 6 *nisi* B$^2$C, *ni* AB$^1$EV Or. Ba. 7 *ubertas et varietas* CBIL, *ubertas varietas* ABVMV Klotz, *ubertas varietasque* E Oxf. Red. GHR +. 22 *extrahenda* MSS, *trahenda* Sch. Mu. after Ernesti. *quibus, a quibus* conj. Heind. 25 *est*, om. A$^1$B (in ras.). 26 *prima est* MSS generally, *primast* V$^1$ Or. Ba., *prima sunt* (*sunt* for *st*) CB, cf. § 110 *mediaest*. *fabricarier ensem et* A by corr. EV$^2$ Oxf. M, *fabricariferensem et* (superscr. *re* after *fer*) B, *fabricari ferens emet* CB, *fabricari ferro ensem et* V$^1$HN. 27 *vinctum* [BE]A (by corr. fr. *victum*), *junctum* CV. 28 *e* MSS generally, *ex* Sch.

160 sunt. Sus vero quid habet praeter escam? cui quidem, ne putesceret, animam ipsam pro sale datam dicit esse Chrysippus; qua pecude, quod erat ad vescendum hominibus apta, nihil genuit natura fecundius. Quid multitudinem suavitatemque piscium dicam? quid avium? ex quibus tanta percipitur voluptas, ut interdum πρόνοια nostra Epicurea fuisse videatur—atque eae ne caperentur quidem nisi hominum ratione atque sollertia,—quamquam aves quasdam, et alites et oscines, ut nostri augures appellant, rerum augurandarum causa esse natas putamus.
161 Jam vero immanes et feras beluas nanciscimur venando, ut et vescamur iis et exerceamur in venando ad similitudinem bellicae disciplinae et utamur domitis et condocefactis, ut elephantis, multaque ex earum corporibus remedia morbis et vulneribus eli*ci*amus, sicut ex quibusdam stirpibus et herbis, quarum utilitates longinqui temporis usu et periclitatione percepimus. Totam licet animis tamquam oculis lustrare terram mariaque omnia; cernes jam spatia frugifera atque immensa camporum vestitusque densissimos montium, pecudum pastus, tum incredi-
162 bili cursus maritimos celeritate. Nec vero supra terram, sed etiam in intimis ejus tenebris plurimarum rerum latet utilitas, quae ad usum hominum orta ab hominibus solis invenitur.

LXV. Illud vero, quod uterque vestrum arripiet fortasse ad reprehendendum, Cotta, quia Carneades libenter in Stoicos invehebatur, Velleius, quia nihil tam irridet Epicurus quam praedictionem rerum futurarum, mihi videtur vel maxime confirmare deorum providentia consuli rebus humanis. Est enim profecto divinatio, quae multis locis, rebus, temporibus apparet, cum [in]
163 privatis tum maxime publicis. Multa cernunt haruspices, multa augures provident, multa oraclis declarantur, multa vaticinationibus, multa somniis, multa portentis, quibus cognitis multae saepe res *ex* hominum sententia atque utilitate partae, multa

6 πρόνοια Or. Ba., *pronoea* MSS Sch. Mu. 14 *eliciamus* **N** Red. Or. Ba. Sch. after Heind., *eligamus* MSS generally Allen Klotz Mu. 15 *percepimus* **CBM** Nonius p. 219, *percipimus* ABEV Oxf. **H**+. 24 *praedictionem* C by corr. **L**, *praedicationem* ABEV Oxf. **BH**+, cf. § 153. 26 *providentia* V (by corr. fr. *prudentia*) **M** Oxf., *prudentia* ABCEP**BHOL**. (Here P recommences after § 68 *Dianam autem.*) 27 *in* MSS and edd., [*in*] Mu. 28 *publicis* MSS generally, *in publicis* **HLON** Sch. Or. Ba. 31 *ex* G**R** Lamb. edd., om. MSS generally. *utilitate* MSS, *utilitates* Mars. Lamb. Sch.

etiam pericula depulsa sunt. Haec igitur, sive vis sive ars sive natura, ad scientiam rerum futurarum homini profecto est nec alii cuiquam a dis immortalibus data. Quae si singula vos forte non movent, universa certe tamen inter se conexa atque conjuncta movere debebant.

Nec vero universo generi hominum solum, sed etiam singulis 164
a dis immortalibus consuli et provideri solet. Licet enim contrahere universitatem generis humani eamque gradatim ad pauciores, postremo deducere ad singulos. LXVI. Nam si omnibus hominibus, qui ubique sunt quacumque in ora ac parte terrarum ab hujusce terrae, quam nos incolimus, continuatione distantium, deos consulere censemus ob eas causas, quas ante diximus, his quoque hominibus consulunt, qui has nobiscum terras ab oriente ad occidentem colunt. Sin autem *his* consulunt, qui quasi mag- 165
nam quandam insulam incolunt, quam nos orbem terrae vocamus, etiam illis consulunt, qui partes ejus insulae tenent, Europam, Asiam, Africam. Ergo et earum partes diligunt, ut Romam, Athenas, Spartam, Rhodum, et earum urbium separatim ab universis singulos diligunt, ut Pyrrhi bello Curium, Fabricium, Coruncanium, primo Punico Calatinum, Duellium, Metellum, Lutatium, secundo Maximum, Marcellum, Africanum, post hos Paulum, Gracchum, Catonem, patrumve memoria Scipionem, Laelium; multosque praeterea et nostra civitas et Graecia tulit singulares viros, quorum neminem nisi juvante deo talem fuisse credendum est. Quae ratio poëtas maximeque Homerum im- 166
pulit, ut principibus heroum, Ulixi, Diomedi, Agamemnoni, Achilli, certos deos discriminum et periculorum comites adjungeret. Praeterea ipsorum deorum saepe praesentiae, quales supra commemoravi, declarant ab iis et civitatibus et singulis hominibus consuli; quod quidem intellegitur etiam significationibus rerum futurarum, quae tum dormientibus, tum vigilan-

3 *alii cuiquam* **HNR**G Red., *alicuiquam* **XB**+, *ab alio cuiquam* V², *ab alio alicui quam* Oxf. **MV**, *ab aliquo quam* **ILOT**. 5 *debebant* AB¹EV¹G**HT**, *debeant* **PLO**, *debebunt* B²CV²+Allen Sch. Mu. see Comm. 12 *ob eas* edd., *ob has* MSS generally. 14 *sin autem, si autem* Bouh. Sch. in App. but see Mu. *Adn. Crit.* p. 12. *his consulunt* Sch. Ba. Mu., *iis consulunt* Or. Klotz, *consulunt* X, *cons. iis* **NC** Red. Asc., *cons. illis* UR+, *illis cons.* G**H**. 19 [*diligunt*] Ba.

tibus portenduntur. Multa praeterea ostentis, multa extis admonemur multisque rebus aliis, quas diuturnus usus ita
167 notavit, ut artem divinationis efficeret. Nemo igitur vir magnus sine aliquo afflatu divino umquam fuit. Magnis autem viris prosperae semper omnes res, siquidem satis a nostris et a principe philosophiae Socrate dictum est de ubertatibus virtutis et copiis. Nec vero *id* ita refellendum est, ut, si segetibus aut vinetis cujuspiam tempestas nocuerit, aut si quid e vitae commodis casus abstulerit, eum, cui quid horum acciderit, aut invisum deo aut neglectum a deo judicemus. Magna di curant, parva neglegunt.

168 LXVII. Haec mihi fere in mentem veniebant, quae dicenda putarem de natura deorum. Tu autem, Cotta, si me audias, eandem causam agas teque et principem civem et pontificem esse cogites et, quoniam in utramque partem vobis licet disputare, hanc potius sumas eamque facultatem disserendi, quam tibi a rhetoricis exercitationibus acceptam amplificavit Academia, potius huc conferas. Mala enim et impia consuetudo est contra deos disputandi, sive ex animo id fit sive simulate.

1 *extis* **NR** Red. Lamb. edd., *in extis* X Oxf. **UTHMO**+. 4 *magnis—copiis* comes at the end of the § (after *parva neglegunt*) in all MSS and edd. see Comm. 5 *prosperae semper* ACP**BHO**, *prospere semper* BE$V^1$G, *prospere eveniunt semper* $V^2$ Oxf. U**CRV**, *prospere semper eveniunt* **N** Red. Sch. 7 *ita refellendum* MSS Allen Klotz, *id ita refell.* edd. after Heind., *id ita premendum* conj. Or. see Comm. 14 *agas*, *ages* Sch. (by mistake ?). 15 *vobis* [X]**BLO**, *quovis* $V^1$ Oxf. U+, *nobis* **H**. 17 *acceptam*, om. Or. Ba. (by mistake). 18 *et impia* CE$V^2$, *et ampia* $V^1$, *etiam pia* ABP.

# NOTES.

## BOOK II.

### Stoic Argument.

*Division of the subject: the Divine existence* (A)*; the Divine nature* (B)*; Providential government of the world* (C)*; Providential care for man* (D). §§ 1—3.

Ch. I § 1. **ne ego incautus:** cf. I 51 n., and for omission of substantive verb § 20, § 68, § 84, and final Index under 'ellipsis'.

**et eodem rhetore:** *idem* is added to give prominence to the union of different attributes (often apparently incongruous, as in I 30,) in the same person. *Rhetor* means properly a teacher of rhetoric as in Plin. *Ep.* IV 11 (cited by Sch.) *eo decidit ut rhetor ex oratore fieret;* then, as here and *Brutus* § 265, one trained in all the rules of speaking. Cicero often speaks of the importance of the study of philosophy, especially the Academic philosophy, to the orator, see below § 168, *Orator* 12, *Fat.* 3, and cf. Quintilian XII 2 § 23 *M. Tullius non tantum se debere scholis rhetorum quantum Academiae spatiis frequenter ipse testatur.* Oratory without philosophy is as defective on the one side, as philosophy without oratory on the other; *docto oratori palma danda est, Orat.* III 142, *Tusc.* I 7. We are told elsewhere that Cotta devoted himself to the Academy with a view to oratory, see *Orat.* III 145 and vol. I pref. p. xl.

**rhetorem:** Martial (II 64 1 and 5) uses the Greek forms *rhetora. rhetorĕs*, see Roby § 480 and Varro *L. L.* X 70.

**neque enim flumine—siccitas:** 'I am not disconcerted either by (i.e. at having to answer) a stream of empty verbiage or by exactness of thought accompanied by jejuneness of style'. We have here the faulty extremes of two styles which are distinguished in *Brutus* 89, *cum duae summae sint in oratore laudes, una subtiliter disputandi ad docendum, altera graviter agendi ad animos audientium permovendos.* Elsewhere C. distinguishes three styles, having for their respective aims to instruct, to influence, to delight. Cf. Mayor's Quintil. X 1 § 44 n. pp. 99, 100, 102, 103, § 46 p. 106. *Sub-*

*tilitas*, clear definite statement, belongs to the 1st: it is described at length in *Orator* 76 foll., cf. also *ibid.* 69, *Brut.* 185, *Opt. gen. dic.* I 3, and Ernesti *Lex. Techn. Lat.* s. v. *Subtilis.* The word *siccus* is sometimes used by way of praise, as in *Brut.* 202, where it is said of our Cotta, *nihil erat in ejus oratione nisi sincerum, nihil nisi siccum et sanum;* so *Opt. gen. dic.* 8 *sicci et sani*, and *exsiccatum Brut.* 291. In such passages the literal force corresponds to our word 'wiry', as opposed to flabby and fleshy, see *Cato* 34 with Reid's n. But it is also used in a bad sense and opposed to *sucus*, as in *Brut.* 283 foll. where we read of a speaker who, in aiming at too great subtilty, *verum sanguinem deperdebat:* such a style is characterized by *siccitas, jejunitas* and *inopia*. Similarly in the treatise *ad Herenn.* IV 9 we find *arescant siccitate.* In opposition to this, C. says (*Orator* 76) that the *subtilis orator, etsi non plurimi sanguinis est, habeat tamen sucum aliquem oportet.* **flumen**: cf. *Orator* 53 *flumen aliis verborum volubilitasque cordi est; distincta alios et interpuncta intervalla...delectant. Quid potest esse tam diversum? tamen est in utroque aliquid excellens;* also *Orat.* II 62, 188, *Acad.* II 19, and *N. D.* II 20.

**corona**: 'an audience', cf. Ov. *Met.* XIII 1 *consedere duces, et vulgi stante corona surgit Ajax, Pro Mil.* 1 *non enim corona consessus vester cinctus est, ut solebat, Brut.* 192 *in iis etiam causis, in quibus omnis res nobis cum judicibus est, non cum populo, tamen si a corona relictus sim, non queam dicere*, Seneca *De Ira* I 12 *relicto judice ad coronam venis* 'the galleries'. On the adversative asyndeton see Index.

**ad ista alias**: for the omission of the verb (*dicam*) cf. I 17 *hoc alias* (*tractemus*), § 19 *ad omnia* (*dicere*), § 28 *eadem* (*dicit*), II 2 *tum Balbus* (*dicit*) and Index under 'ellipsis'. [Madv. on *Fin.* I 9. Swainson.]

§ 2. **Balbus**: it is rather curious that, while C. Aurelius Cotta is only called by his *cognomen*, Q. Lucilius Balbus is called indifferently either by *nomen* or *cognomen*, e.g. B. in I 16, 22, 50, III 2, L. in I 20, 25, 47, III 3.

**mallem audire—dum—inducat**: 'for my part I should have preferred to hear that same Cotta using the eloquence, with which he removed the false Gods, to bring in the true'. This, which is Mr Roby's translation, seems to me to give a better force to *eundem* than I had done in my own previous version 'I too should have agreed with you in preferring to hear Cotta, rather than speak myself, provided he is as eloquent in introducing the true worship, as he was in overthrowing the false' (where the use of *dum* would resemble that in *Rosc. Am.* 119 *ipse sese in cruciatum dari cuperet, dum de patris morte quaereretur*). I now take the sentence to be equivalent to *mallem audire eundem inducentem qui sustulerat*, cf. below § 24 *animadversum est cum cor palpitaret*, Suet. *Dom.* 4 *auditus est dum ab eo quaerit*, and n. on I 58 *videor audisse cum te togatis anteferret.* Draeger (§ 597 B) cites it as an example of *dum*, 'whilst', followed by the Subj., and compares *pro Plancio* § 95 *dixisti, dum Plancii in me meritum extollerem, me arcum facere e cloaca; pro Mur.* 48 *populum Romanum in eum metum adduxisti, ut pertimesceret ne consul Catilina*

*fieret, dum tu accusationem comparares;* cf. also *Orat.* I 187 *hoc video, dum breviter voluerim dicere, dictum esse paulo obscurius.* For the discrepancy of tenses Draeger (§ 152. 2) cites *Fam.* XIII 6 a. 4 *quae quantum valeant, vellem expertus esse, sed tamen suspicor, N. D.* III 10 *primum fuit, cum caelum suspexissemus, statim nos intellegere esse aliquod numen quo haec regantur;* cf. also *Fin.* I. 25 *si concederetur, etiam si ad corpus nihil referatur, ista per se esse jucunda* (where see Madv.), *Tusc.* I 60 *illud, si ulla alia de re obscura affirmare possem, sive anima sive ignis sit animus, eum jurarem esse divinum.* The difference of tense in the case before us is facilitated by the peculiar attraction which *dum* has for the Present, see Roby § 1458 and below § 49 *dum judicat non suspexit.* There is a similar discrepancy in II 147 according to the MSS, *dum disputarem—velim,* but see n. there. As a rule the tense of the subordinate verb is attracted to that of the governing verb, as in I 45 *deorum natura coleretur, cum aeterna esset* (for *sit*), II 3 *te audire vellem cum ipse dixissem* (for *dixerim*), § 32 *quoniam esset particeps* (for *sit*), § 49 *si didicisset, bis bina quot essent* (for *sint*), § 67 *cum vim haberent* (for *habeant*) *maximam prima et extrema, principem Janum esse voluerunt,* § 118 *ex quo eventurum putant id, de quo Panaetium addubitare dicebant, ut omnis mundus ignesceret* (for *ignescat*), III 9 *cur contuerere altero oculo causa non esset, cum idem obtutus esset* (for *sit*) *amborum,* § 70 *sic soletis occurrere, non idcirco non optime nobis a dis provisum, quod multi eorum beneficio perverse uterentur* (for *utantur*).

**et philosophi—et Cottae**: cf. § 168 and III 5. On the *pontifices* see *Harusp. Resp.* 12 foll.

**errantem et vagam**: 'hesitating and unsettled', see *Acad.* II 66 *ego sum magnus opinator...eo fit ut errem et vager latius,* and note on *N. D.* I 2.

**oblitus es quid dixerim**: the interrogative pronoun is commonly used after *obliviscor,* as in *Brut.* 218 *obliviscebatur quid posuisset;* it is here explained by the following Infinitive, as in *Fin.* II 10 (cited by Allen) *quid paulo ante, inquit, dixerim, nonne meministi, cum omnis dolor detractus esset, variari, non augeri voluptatem?* The ref. is to I 57, 60.

§ 3. **haberem...quod liqueret**: cf. nn. on I 29, 117.

**geram tibi morem**: this means literally 'to show a certain behaviour for the sake of another', and hence to humour or oblige another. The compounds *morigerus* and *morigeror* are common in the comic poets, the latter is also found in *Orator* 159. The contrary to this is *ponere* or *imponere morem* 'to impose a behaviour', to lay down the law for another.

[**detracta oratio est**: that this is the usual order is shown by Madv. *Fin.* V 86. Swainson.]

**omnino**: 'to take a general view'. So in *Lael.* 78 *omnino omnium horum vitiorum atque incommodorum una cautio est, ut ne nimis cito diligere incipiant, Off.* I 66 *omnino fortis animus et magnus duabus rebus maxime cernitur.*

**istam**: the matter you have been discussing.

**primum docent—humanis**: on this division see the Introduction on the sources of this book, and Schwencke, who shows (p. 130) that the questions περὶ θεῶν and περὶ προνοίας were usually treated separately, but that they were combined by Posidonius in his treatise π. θεῶν.

**sumamus**: not, as in I 89, 'assume', but 'take into consideration'. Sch. quotes *Orat.* II 366 *quis Antonio permisit, ut et partes faceret: et, utram vellet, prior ipse sumeret.*

**minime vero**: 'no! no!' For this emphatic force see I 86.

**et otiosi—anteponendae**: Moser cites Plato *Phaedr.* 227 B πεύσει εἴ σοι σχολὴ ἀκούειν. Τί δέ; οὐκ ἂν οἴει με, κατὰ Πίνδαρον (*Isthm.* I 1) καὶ ἀσχολίας ὑπέρτερον πρᾶγμα ποιήσασθαι, τὸ σήν τε καὶ Λυσίου διατριβὴν ἀκοῦσαι; cf. also *Leg.* X 887 B, and Cic. *Divin.* I 10 *de quibus quid ipse sentiam, si placet, exponam; ita tamen, si vacas animo neque habes aliquid, quod huic sermoni praevertendum putas. Ego vero, inquam, philosophiae semper vaco.*

## A. Proof of the Divine Existence. §§ 4—44.

a. *From the observation of the heavens* § 4, b. *from the general consent of mankind* § 5, c. *from various recorded appearances of the Gods* § 6, d. *from the fact of divination* §§ 7—12.

a. That 'the heavens declare the glory of God' is more fully shown in §§ 15—17, 39—44, 90—97, 102—119, 153—155. For the same argument cf. Plato *Leg.* X pp. 896—899, and the well-known words of Kant: 'Two things there are which, the oftener and the more steadfastly we consider them, fill the mind with an ever new, an ever rising admiration and reverence;—the Starry Heaven above, the Moral Law within....The one departs from the place I occupy in the outer world of sense; expands, beyond the bounds of imagination, the connexion of my body with worlds rising beyond worlds, and systems blending into systems; and protends it also into the illimitable times of their periodic movement—to its commencement and perpetuity'. (*Krit. d. Prakt. Vern.* Beschluss, translated by Hamilton *Metaphysics* I p. 39.)

Ch. II § 4. **quid enim—regantur**: paraphrased by Minucius *Oct.* 17.

**cum caelum suspeximus**: cf. *Harusp. resp.* 9 *Quis tam vecors, qui aut, cum suspexerit in caelum, deos esse non sentiat, et ea, quae tanta mente fiunt, ut vix quisquam arte ulla ordinem rerum ac necessitudinem persequi possit, casu fieri putet; aut, cum deos esse intellexerit, non intellegat eorum numine hoc tantum imperium esse natum et auctum et retentum?* Lactant. I 2 *nemo est tam rudis, tam feris moribus, quin oculos suos in caelum tollens, tametsi nesciat cujus dei providentia regatur hoc omne quod cernitur, non aliquam tamen esse intellegat;* Minuc. 18 *audio vulgus: cum ad caelum manus tendunt, nihil aliud quam 'Deum' dicunt, et 'Deus magnus est'; 'Deus verus est';* Tertull. *Apol.* 17.

**quo regantur**: Abl. of Cause, where we might have expected the Abl. of Agent with *ab*; but *numen* is rather abstract than personal 'an influence of an all-perfect Reason', as in the parallel passage *N. D.* III 10, and generally in Cic., cf. *Harusp. Resp.* 9 cited above, ib. 19 *deorum numine omnia regi*, *N. D.* II § 16 *id quo illa conficiuntur*, § 83 *terra natura tenetur*, § 85 *natura administrari*, *n. regatur.*

**qui potuisset**: see I 57 n.

**assensu omnium**: see Roby § 1239, and § 1242, and Kühnast *Liv. Synt.* p. 175 foll. In Liv. III 72 we find *cum assensu audiri.*

**aspice—Jovem**: cited again in § 65 and III 10 and 40. We learn from Festus p. 306 M (*sublimem est in altitudinem sublatum ut Ennius in Thyeste*, where Vahlen, Ribbeck, &c. would read *sublimen*) that the line is from the *Thyestes*, apparently the latest play of Ennius (*Brut.* 78), from which C. quotes also in *Tusc.* I 107, III 26. There was a play of Attius on the same subject (the *Atreus*) from which a quotation is given below III 68.
**hoc sublime candens**: 'this dazzling vault of heaven'. For the use of the pronoun *hoc*, pointing to the sky, cf. the fragment below § 65, *hoc quod lucet, quicquid est;* Ennius *Telamon* l. 367 V. *hoc lumen candidum claret mihi;* Pacuvius (Ribb. 86) *hoc vide circum supraque quod complexu continet terram* (preceding the quotation in *N. D.* II 91); Plaut. *Mil. Gl.* 217 *lucet hoc; Amphitr.* 543; *Curcul.* 182; Terent. *Haut.* 410; so *caelum hoc* often in Cic. e.g. *Tusc.* I 43, 1 *Cat.* 15 *potestne haec lux aut hujus caeli spiritus esse jucundus?* **candens** and *candidus* are favourite words with Ennius, see Vahlen's *Ind.* On the form *sublimen* read here by most of the later edd. see L. and S. s. v. It was introduced by Vahlen and Ribbeck, in their collections of the fragments, from the Benedictine MS of Apuleius *De Mundo* 33, where the line occurs. Ritschl reads it with an adverbial force in many passages of Plautus, see his paper in *Rhein. Mus.* 1850 p. 556 (*Opusc.* II p. 262 foll.). Whatever Ennius may have written, it seems to me probable that C. here used the ordinary form *sublime*, as in the translation from Euripides, probably made by himself, in § 65 *vides sublime fusum.*
**quem**: for the attraction of the Pron. to the gender of the predicative noun, see Roby § 1068. **invocant**: the lexicons give this the force of *vocant*, and cite supposed parallels from Curtius. I do not see why it may not be translated 'call upon' in all cases, the Acc. being treated as oblique complement after factitive verb, like *te saluto imperatorem* or *ascisco augures* in § 7.

**illum vero et Jovem**: 'Aye! and not only invoke him as Jupiter, but also as sovereign of the world'. [Cf. Liv. I 12 *hic ego tibi templum Statori Jovi voveo*, 'I vow a temple to thee by the name of Jove the Stayer'. R.] Only one other instance of *dominator* is cited (Lact. II 14 2) but *dominatrix* occurs *De Invent.* I 2. [Add for the former Sen. *H. F.* 1181, *Thy.* 1078, *Med.* 4, *Phaedr.* 1039, 1159, Sil. XIV 79, Wilmanns *Inscr. Lat.* 590 15, Serv. *Aen.* III 73 fin., Aug. *Serm.* 290 2, Tert. *adv. Hermog.* 9, Hier. *in eccl.* 4 col. 425, *in Malach.* 3. 1. J. E. B. M.] I do not agree with Sch. in con-

sidering that there is an allusion to the derivation of *Jovem* from *juvo*, as though *Jovem* here meant a helper.

**nutu regentem**: so *Rosc. Am.* 131 *Jupiter O. M. cujus nutu et arbitrio caelum terra mariaque reguntur*, cf. Homer *Il.* I 528.

**patrem divumque hominumque**: Enn. *Ann.* VI fr. 2 V., quoted again below § 64 = πατὴρ ἀνδρῶν τε θεῶν τε Hom. *Il.* IV 360, Hes. *Theog.* 47, Diod. Sic. I 12. Virgil's *divom pater atque hominum rex* is also borrowed from Ennius. The name *Ju-piter*, Ζεὺς πατήρ, corresponding to the Odin All-father of the north, is of course inconsistent with the genealogical details of later mythology, see Preller *R. M.* p. 164[2] foll., Welcker *Gr. Gött.* I 179 foll. In Homer we find Zeus styled πατήρ by Thetis (*Il.* I 503), Poseidon (VII 446), Hera (XIX 121); and in *Od.* XX 202 he is appealed to as the father of men, ἐπὴν δὴ γείνεαι αὐτός. It was from the hymn of Cleanthes, expressing this belief in the fatherhood of Zeus, that the Apostle Paul took the text of his address to the Athenians, τοῦ γὰρ καὶ γένος ἐσμέν. On the other hand the common origin of gods and men from earth is asserted in Hesiod *Op.* 108 ὡς ὁμόθεν γεγάασι θεοὶ θνητοί τ' ἄνθρωποι, and Pindar *Nem.* VI 1 ἓν ἀνδρῶν, ἓν θεῶν γένεσις, ἐκ μιᾶς δὲ πνέομεν ματρὸς ἀμφότεροι. Lactantius IV 3 arguing in favour of a primaeval monotheism from the universal use of the term *pater* in the ceremonies of the different gods, quotes Lucilius *ut nemo sit nostrum quin pater optimus divum, ut Neptunus pater, Liber, Saturnus pater, Mars, Janus, Quirinus pater, nomen dicatur ad unum.* The Stoics justly claimed the authority of ancient tradition, not only for their doctrine of the Divine fatherhood, but also for their identification of the Deity with heaven. The name Zeus itself means originally the sky (Max Müller vol. II Lect. X) and so we find in Homer *Il.* XIII 837 αἰθέρα καὶ Διὸς αὐγάς, II 412 Ζεὺς αἰθέρι ναίων, and in Aeschylus fr. 295 Dind. we have the same idea widening out into a true Stoic pantheism, Ζεύς ἐστιν αἰθήρ, Ζεὺς δὲ γῆ, Ζεὺς δ' οὐρανός· Ζεύς τοι τὰ πάντα χὤτι τῶνδ' ὑπέρτερον. So Democritus ap. Clem. Al. *Protr.* § 68, and *Strom.* V § 103, 'there are men who have learnt, as they raise their hands to heaven, to say that all is Zeus, and that he knows and gives and takes away all things, and is the king of all'. Compare also the old Orphic line so much quoted by the Stoics, Ζεὺς ἀρχή, Ζεὺς μέσσα, Διὸς δ' ἐκ πάντα τέτυκται (Lobeck *Agl.* p. 530) and that of Valerius Soranus (ap. Aug. *C. D.* VII 9) *Jupiter omnipotens, regum rerumque deumque progenitor genetrixque deum deus unus et omnis.* Further illustrations may be found in Seneca *Qu. N.* II 45, Epict. *Diss.* I 3, Cornutus c. 9 with Osann's n.

**quod qui dubitet—possit**: on the hypothetical use of the Subj. cf. I 43 *qui consideret* n. Madv. *Fin.* II 86, *Tusc.* V 118. The Ind. is read by most edd. in § 93 *qui existimat, non intellego cur non putet.*

**sol sit an nullus sit**: the more common form of alternative is *sol sit necne*, as in I 61 *sintne di necne*, III 17 *di utrum sint necne sint*; here we have a stronger opposition, see on I 61 *nulli esse.*

§ 5. **cognitum comprehensumque**: the Stoic καταληπτόν, cf. I 1 n. on *perceptum et cognitum.*

**inveterascere**: I have followed Forchhammer (*Nord. Tidsk.* 1880 p. 40) in adopting this form, as it seems to be the form regularly used by Cic. and his contemporaries in the sense of becoming fixed, cf. 3 *Cat.* 26 (*res nostrae*) *litterarum monumentis inveterascent,* Nepos *Att.* 2 *inveterascere aes alienum patiebatur,* Lucr. IV 1068 *inveterascit alendo,* Caesar *B. G.* V 40 *inveterascere consuetudinem,* ib. II 1 *exercitum inveterascere in Gallia;* and there is no certain example of *inveterare* in the same sense (though Forcellini refers to it all the exx. of the Perf. stem *inveteravi*), nor of *inveterari* before the time of Pliny.

**ceteras**: i.e. all but the *naturae judicia* mentioned below. The antithesis is concealed by the parenthetical *quis—extimescat.*

**fictas**:=*fictas* οὔσας.

**extabuisse**: 'to have dwindled away'; only found here in tropical sense.

**Hippocentaurum**: cf. I 105. The writer of the notice of vol. I in the *Saturday Rev.* adds a ref. to *Digest* 45. 1. 97.

**Chimaeram**: I 108. **anus**: see I 55 n.

**excors**: 'senseless', the old Romans regarded the heart as the seat of the understanding; hence the derivatives *Corculum* (the surname of Nasica), and *cordatus.*

**apud inferos portenta**: for constr. cf. *praeter naturam portentis* § 14; for the thought Juv. II 149, Seneca *Consol. ad Marc.* 19 *cogita—illa quae nobis inferos faciunt terribiles, fabulam esse; nullas imminere mortuis tenebras nec carcerem nec flumina flagrantia igne nec oblivionis amnem, Ep.* 24, Cornutus c. 35 (Osann p. 383), Serv. *ad Aen.* XI 755, Cic. *Tusc.* I 10 and 48. According to Plutarch *Stoic. Rep.* p. 1040, Chrysippus attacked Plato for his doctrine of future punishment ὡς οὐδὲν διαφέροντα τῆς Ἀκκοῦς καὶ τῆς Ἀλφιτοῖς, δι' ὧν τὰ παιδάρια τοῦ κακοσχολεῖν αἱ γυναῖκες ἀνείργουσιν. Sext. Emp. IX 66 explains why that general consent, which is considered to prove the existence of the Gods, is disregarded in the case of Tartarus.

**opinionis commenta**: cf. Sext. Emp. *Math.* IX 62 αἱ ψευδεῖς δόξαι καὶ πρόσκαιροι φύσεις οὐκ ἐπὶ πλεῖον παρεκτείνουσιν ἀλλὰ συντελευτῶσιν ἐκείνοις ὧν χάριν ἐφυλάττοντο (e.g. divine honours paid to kings *ibid.* 35).

**deorum cultus—meliores.** On the state of religious belief at this time see my *Sketch of Ancient Philosophy* p. 212 foll. We find a less favourable view, as regards divination, in § 9, and as regards the reverence for sacred things in I 81; the latter view agrees with what we read in Livy III 20 *nondum haec, quae nunc tenet saeculum, neglegentia deum venerat,* cf. X 21, Varro ap. Aug. *C. D.* VI 2 (*V. dicit*) *se timere ne* (*di*) *pereant, non incursu hostili, sed civium neglegentia, de qua illos velut ruina liberari a se dicit.*

§ 6. **et praesentes**: *et* prepares the way for *praedictiones* in § 7, but this is delayed by a series of exx. cf. Madv. *Fin. exc.* I. For the matter cf. §§ 163, 166, and n. on *occurrit* I 46. Cic. himself *Harusp. Resp. fin.* denies

that such epiphanies really occurred, *nolite id putare accidere posse, quod in fabulis saepe videtis fieri, ut deus aliquis delapsus e caelo coetus hominum adeat, versetur in terris, cum hominibus colloquatur*, 'the divinity reveals himself through omens and portents, not in personal form'. See Xen. *Mem.* IV 3.

**Castor et Pollux**: cf. III 53, Lucian *Dial. Deor.* 26 with Hemsterhuis' nn., Preller (*Gr. Myth.* II 99², *R. M.* 660²), who gives a long list of their appearances. Theocritus XXII 6 calls them ἀνθρώπων σωτῆρας ἐπὶ ξυροῦ ἤδη ἐόντων ἵππων θ' αἱματόεντα ταρασσομένων καθ' ὅμιλον ναῶν θ'. We read (*Divin.* I 75) of their fighting for the Spartans at Aegos Potami, in memory of which two golden stars were dedicated at Delphi, (*Orat.* II 352) of their saving Simonides in the fall of the palace of Scopas. Florus (III 3 20) says they carried the news of the defeat of the Cimbri to Rome. Their worship was brought from Sparta to Tarentum and Locri and thence to Rome, where equestrian processions were yearly held in their honour. The surname Ahenobarbus was connected with the miraculous story of the battle of Regillus; Domitius refusing to give credit to the tidings brought by the Dioscuri, Pollux by a touch changed his beard from black to red (Suet. *Nero* 1). The same belief in heavenly warriors mixing in the fray in bodily form is found both among Jews (2 Maccabees x 29, xi 8), and the Christians of the Middle Ages; see Mrs Jameson *Sacred and Legendary Art* p. 234, (abbreviated) 'the Spanish historians number 38 visible apparitions, in which St James of Compostella descended from heaven in person and took command of their armies against the Moors. The first and most famous was at the battle of Clavijo (939 A.D.) when the glorious saint showed himself in the heat of battle, as he had promised King Ramirez on the previous night, mounted on a milk-white charger and waving aloft a white standard: he led on the Christians, who gained a decided victory, leaving 60,000 Moors dead on the field'.

**ex equis pugnare**: the same phrase occurs Liv. I 12 9; cf. *ex equis colloqui* Caesar *B. G.* I 43, *ex vinculis causam dicere* ib. I 4, and Liv. XXIX 19, λαμπὰς ἔσται ἀφ' ἵππων τῇ θεῷ Plato *Rep.* I 328 A; *ab equo* (*jacere tela*) is found Ov. *A. A.* I 210, see Mayor's Juvenal V 155. The Tyndaridae are called λευκόπωλοι (Pind. *Pyth.* I 66). In III 11 Cic. refers to the story of the print of a horse's hoof being still visible in the rock near Regillus.

**Persem victum**: the last king of Macedonia, defeated by L. Aemilius Paulus at Pydna 168 B.C. Another marvel is related of this war in *Div.* I 105, which perhaps may be considered to betoken the anxiety which it caused.

**hujus adulescentis**: cf. I 79 n., and *Off.* I 121 *hunc Paulo natum.* The ref. is to Vatinius the Legatus of Caesar, accused by Cic. in a scurrilous speech still extant, but afterwards reconciled to him through Caesar's influence. As he was quaestor in 63 B.C., he would be under 20 years of age in 76 B.C., the supposed date of the Dialogue.

**praefectura Reatina**: Cic. often mentions this town, with which he

was officially connected, having acted as its patron in the cause against the town of Interamna. The waters of the river Velinus, which flows through R., are so strongly impregnated with carbonate of lime, that they are continually forming deposits of travertine, and thus tending to block up their own channel; so that unless their course was artificially regulated, the valley of the Velinus was liable to be inundated; while, if these waters were carried off too rapidly into the Nar, which runs at a much lower level, the valley of that river and the territory of Interamna suffered the same fate. (E. H. Bunbury in *Dict. of Geog.*) In the speech *Pro Scauro* 27 Cic. mentions that he visited the locality in order to be thoroughly informed of the facts: compare also *Att.* IV 15 and 3 *Cat.* 5, where he speaks of his body-guard of Reatines. The Italian towns are classified by C. (*Sext.* 32, 2 *Phil.* 58) as *municipia, coloniae, praefecturae.* Festus defines the last as towns in which *et jus dicebatur et nundinae agebantur et erat quaedam earum res publica, neque tamen magistratus suos habebant.* He mentions Reate among the *praefecturae* to which one *praefectus* was sent annually by the *praetor urbanus;* in other cases there were several *praefecti* elected by the immediate vote of the *Populus Romanus.* After the 2nd Punic war Capua was punished by being degraded into a *praefectura.* The name *praefectus* recalls the old conquests of Rome, when a Roman governor was sent with a colony to overawe the inhabitants of some Latin or Samnite town, cf. Marquardt I p. 9, 29, 41 foll.

**cum equis:** so *Q. Fr.* II 13 (*Domitium publicani*) *cum equis prosecuti sunt,* 2 *Verr.* V 7 *edictum ne quis servus cum telo esset, Div.* I 119 *Caesar cum purpurea veste processit,* cf. Hand Tursell. II p. 144. *Cum* in such cases is used idiomatically, instead of a more definite preposition, to give prominence to some accessory circumstance. So in Gr. we find (Xen. *Cyrop.* VIII 1 8) *ἐφοίτων ἐπὶ τὰς θύρας Κύρου οἱ ἔντιμοι σὺν τοῖς ἵπποις καὶ ταῖς αἰχμαῖς,* like the *ἵππον ἔχων* of Plato *Symp.* 221, and *σὺν ὅπλοις* 'in armour', *σὺν νηΐ* 'on board ship'.

**cum senatui nuntiavisset:** so Vahlen (*Zeitschr. f. Öst. Gymn.* 1873 p. 241) proposes to read, as *cum* might have been easily lost after the preceding *captum* (see crit. nn.). He cites *Div.* I 51 *P. Decius...cum esset tribunus militum...a Samnitibusque premeretur noster exercitus, cum pericula proeliorum iniret audacius* &c.; *Parad.* I 8 *cujus cum patriam cepisset hostis, ceterique ita fugerent, ut multa de suis rebus asportarent, cum esset admonitus a quodam* &c. For the loss of *cum* in the MSS cf. below § 63 *nam cum.*

**quasi locutus**=*ὡς δὴ μάτην εἰρηκώς,* 'on the ground that he had spoken', cf. Val. Max. I 8 § 1 (*Vatinius*) *tamquam majestatis senatus...vano sermone contemptor in carcerem conjectus.* Draeger § 536 confines this use of *quasi* to Tacitus. [It is common in the lawyers, e.g. Gai. II 198 *plerique putant legatarium petentem per exceptionem doli mali repelli, quasi contra voluntatem defuncti petat,* IV 163, Dig. II 14 l. 7 § 15. R.]

**constitisset:** 'tallied'; *idem* is pleonastic, cf. *ad Herenn.* I 9 § 16 *veri similis narratio erit, si spatia temporum, personarum dignitates, consiliorum*

*rationes, locorum opportunitates constabunt*, and the common phrase *ratio constat.*

**vacatione**: exemption from military service was granted to those who held a priesthood or a magistracy, or on the ground of eminent merit, e.g. to Aebutius for giving information about the Bacchanalia (Liv. XXXIX 19 4), to the soldiers who had joined Octavius and Hirtius against Antonius (*Philipp.* v 53). Exemption for five years was granted to the Praenestines in the 2nd Punic war for their brave defence of Casilinum. In times of emergency the Senate might pass a decree '*ne vacationes valerent*' (*Philipp.* v 12, Marquardt III 2 p. 289).

**Locri**: these were the L. Epizephyrii, a colony sent out by the Locrians of Opus probably in the 7th cent. B.C. who first occupied the Bruttian promontory of Zephyrium, and afterwards moved to a site 15 m. further to the north. They paid divine honours to their national hero Ajax son of Oileus, regularly leaving a place for him in their line of battle (Paus. III 19 § 11 with n. by Siebelis), and sending yearly to Ilium two maidens chosen by lot to serve as ministers in the temple of Athene, by way of atonement for the rape of Cassandra (Preller *Gr. M.* II 454, Plut. *S. N. Vind.* c. 12 with Wyttenbach's n.). The river Sagra separated Locri from Caulonia. Lenormant (*La Grande-Grèce* II pp. 27—35) identifies it with the Turbolo, a precipitous torrent running between rocky banks; near the mouth of this there is a narrow pass, like that of Thermopylae, which, he thinks, affords a natural explanation of the victory of the Locrians. He gives B.C. 560 as the date for the battle. In *N. D.* III 13 Cic. alludes to the proverb ἀληθέστερα τῶν ἐπὶ Σάγρᾳ, which Suidas s.v. ἀληθής explains as follows: the Locrians being threatened by Crotona asked help of Sparta, from which many of their citizens had come, but the Spartans declined to give them any thing but the Dioscuri, i.e. probably the images or symbols (δόκανα) which were carried with the kings on their warlike expeditions. (So the Greeks asked for the Aeacids before the battle of Salamis.) The Locrians accepted this as a good omen, went to the shrine, and offered sacrifices to the Twin Gods. When the news of the victory came the Spartans refused to believe it; hence the proverb is used ἐπὶ τῶν ἀληθῶν μέν, οὐ πεπιστευμένων δέ. In the battle it is said that 120,000 Crotoniates were ranged against 15,000 on the side of Locri; *pugnantibus Locris aquila ab acie numquam recessit, eosque tam diu circumvolavit, quoad vincerent. In cornibus quoque duo juvenes diverso a ceteris armorum habitu, eximia magnitudine et albis equis et coccineis paludamentis, pugnare visi sunt, nec ultra apparuerunt quam pugnatum est. Hanc admirationem auxit incredibilis famae velocitas. Nam eadem die, qua in Italia pugnatum est, et Corintho et Athenis et Lacedaemone nuntiata est victoria* (Justin XX 3). The people of Crotona were roused from the apathy which followed their defeat by the coming of Pythagoras shortly afterwards. Among other marvels related in connexion with this war we are told that the two Crotoniate generals, Leonymus and Phormion, having

been wounded, one by Ajax, one by Pollux, were healed when they made their supplications to the heroes they had defied (see Meineke *Frag. Com.* II 1230. *App.* on Phormio), and that the temple of Persephone at Locri was saved by miracle from the assault of the invaders, Liv. XXIX 18. Strabo (VI 1 § 10) speaks of the altars to the Dioscuri on the banks of the Sagra.

**ludis**: Abl. of Time. **Olympiae**: Locative.

**Faunorum**: usually connected with *faveo*, *Favonius*, 'the kindly god' =εὔανδρος, but H. Nettleship in an interesting paper on the Earliest Italian Literature (*J. of Phil.* XI p. 180 foll.) prefers the older view, which connects it with *fari* and φωνή. He considers that the Fauni were the seers of the early rustic communities and that, as their functions were superseded, they became unreal beings, speaking with unearthly voices in the recesses of mountain and forest, and were thus gradually identified with the Πᾶνες and Σάτυροι of Hellas. Cf. *Div.* I 101 *saepe etiam et in proeliis Fauni auditi, et in rebus turbidis veridicae voces ex occulto missae esse dicuntur*, Lucr. IV 580 *haec loca* (i.e. where echoes are heard) *capripedes satyros nymphasque tenere finitimi fingunt et Faunos esse locuntur, quorum noctivago strepitu ludoque jocanti adfirmant volgo taciturna silentia rumpi*, Varro *L. L.* VII 36 *Faunos versibus, quos vocant Saturnios, in silvestribus locis traditum est solitos fari futura;* so Virgil tells of Latinus consulting Faunus at Albunea (*Aen.* VII 81), Ovid of Numa consulting him on the Aventine (*Fasti* IV 640), and Dionysius (V 16), speaking of the voice which encouraged Valerius, after the battle of Aricia, with the news that the Etruscans had lost more than the Romans, adds that the Romans ascribe to Faunus any sudden alarm whether from an apparition or a voice.

**saepe—coegerunt**: cf. for the argument *Div.* I 35 foll. Allen reads *coegerint* which is perhaps more natural with *quemvis* than the Ind. of the MSS.

Ch. III § 7. **ea ostendi—praedici**: Sch. was the first to omit *quae sint* after *ea*, as having been added by the scribes from a misunderstanding of the construction. In his *Opusc.* III 326 he cites, among other examples of a neuter plural where a different gender might have been expected, *Div.* II 117 *afflatus ex terra mentem ita movens, ut eam providam rerum futurarum efficiat; ut ea non modo cernat ante, sed etiam numero versuque pronuntiet*, and from this book § 15 *ea fortuita* after *rerum*, § 18 *haec* referring to *ratione et sapientia*, § 87 *ea* referring to *partes*, § 88 *illa* referring to *conversionibus*, cf. *Orat.* II 20 with Wilkins' n. It may be questioned, however, whether *quae sint* is a very natural addition, whether it is not more probable, as Walker suggests, that the original was *quae futura sint*, as we have it combined with *res fut.* in *Div.* I 127 *qui enim teneat causas rerum futurarum, idem necesse est omnia teneat, quae futura sint;* and, by itself, the phrase is of constant occurrence, e.g. *Div.* I 82 (bis), *N. D.* 153. Cic. repeats himself in *Div.* I 93 (*portentorum*) *vim, ut tu soles dicere, verba ipsa prudenter a majoribus posita declarant. Quia enim ostendunt, portendunt,*

*monstrant, praedicunt* (Ba. after Lamb. *prodicunt*, which Swainson would read here), *ostenta, portenta, monstra, prodigia, dicuntur.* Schultz thus discriminates their meaning; *ostentum* and *monstrum* point to the nature of the phenomenon, *ost.* as something marvellous, *monst.* as something unnatural and odious, e.g. the Minotaur; the other words have reference to the import of the phenomenon, *prodigium* (which Vaniçek derives from *aio*, comparing *nego, adagium, indigito*) implying something fateful and usually, but not always, evil, while *portentum* forebodes actual ruin. Hence *port.* and *monst.* are often used metaphorically to express detestation and loathing. Augustine, in a parallel passage (*C. D.* XXI 8), derives *prodigium* from *porro dicere.*

**ea ficta**: this is explained by the following accusatives in apposition; 'but if we believe these things to be mere baseless fictions of romance, I mean the stories about Mopsus and the others, though even these must have had some foundation' &c.

**Mopsum**: said to be a Semitic word meaning 'seer'. It was believed that there were three of the name, the most famous being the prophet who accompanied the Argonauts; another was son of Apollo and Manto, who had oracles at Mallus and Mopsuestia in Cilicia. He is referred to *Div.* I 88, *Amphilochus et Mopsus Argivorum reges fuerunt, sed iidem augures, iique urbes in ora maritima Ciliciae Graecas condiderunt.* At Mallus he was worshipped in conjunction with the rival seer Amphilochus. Pausanias I 34 speaks of this as the most trustworthy oracle in his day. Plutarch *Def. Or.* c. 45 tells a story of an Epicurean being converted by a response given from his oracle. See Cic. *Leg.* II 33 and Preller *Gr. M.* II p. 483, Bouché-Leclerq vol. III p. 341.

**Tiresiam**: 'observer of τείρεα (stars or marvels)'. In the Odyssey he appears as the sole man who retains his faculties intact in the under world, *solum sapere, ceteros umbrarum vagari modo Div.* I 88. He plays an important part in the *Seven against Thebes*, the *Oedipus Rex*, the *Antigone, Bacchae* and *Phoenissae.*

**Amphiaraum**: the blameless prophet described by Aeschylus in the words, which all applied to Aristides, οὐ γὰρ δοκεῖν ἄριστος ἀλλ' εἶναι θέλει *Sept. c. Theb.* 588. He was induced by his wife Eriphyle to join the expedition against Thebes, and saved from the pursuit of his enemy by Zeus, who caused the earth to open and swallow him up. His oracle at Oropus was said to cover the spot, others favoured the claims of Thebes (Herod. I 46, 49, 52, VIII 134, Pausan. I 34); it was not destroyed till the time of Constantine (Euseb. *V. C.* II 56), see *Dict. of Ant.* under *oraculum.*

**Calchantem**: the prophet who accompanied the Greeks to Troy, οἰωνοπόλων ὄχ' ἄριστος, ὃς ᾔδη τά τ' ἐόντα τά τ' ἐσσόμενα πρό τ' ἐόντα. Strabo VI 284 mentions an oracle of his near Mt Garganus in Apulia. It was foretold that he would perish on meeting a superior soothsayer, viz. Mopsus.

**Helenum**: Πριαμίδης Ἕλενος οἰωνοπόλων ὄχ' ἄριστος *Il.* VI 76. Having

accompanied Neoptolemus to Epirus after the fall of Troy, on the death of the latter he inherited a part of his kingdom, and foretold the fortunes of Aeneas (*Aen.* III 245). The most famous of all the seers, Trophonius, is omitted here, but appears below III 49.

**quos—ascivissent**: 'whom even the legends would not have acknowledged as diviners, if the facts (in each case) had been decidedly against it'. I see no reason to change the plural *repudiarent* of the MSS; the Imp. seems to suit better a series of facts than an abstract idea such as 'reality', cf. I 75. On the sentence generally, cf. *Leg.* II 33 *neque enim Mopsi...tantum nomen fuisset neque tot nationes id ad hoc tempus retinuissent...nisi vetustas ea certa esse docuisset;* Sch. cites *Verr.* II 138 *ut, etiamsi homines tacerent, res tamen ipsa illum censum repudiaret.*

**domesticis exemplis**: the same exx. are cited *Div.* I 29, II 20, Min. Fel. c. 7, cf. also Valerius Maximus I (*De neglecta religione*).

**P. Claudius Pulcher**: consul 249 B.C., was defeated by Adherbal in the sea-fight off Drepanum. He was tried for high treason, but there is some doubt as to the result of the trial; we read however (Gell. X 6) that three years later his sister, a Vestal virgin, being rudely pushed by the crowd, expressed a wish that her brother were alive again to lessen their numbers in another engagement.

**etiam per iocum**: Cic. has altered the form of the sentence, which should naturally have continued *cum mergi jussisset poenas dedit.*

**pulli**: on the curious augury by means of the sacred chickens see Plin. *N. H.* X 24 *horum gallorum sunt tripudia solistima: hi magistratus nostros quotidie regunt...hi fasces Romanos impellunt aut retinent, jubent acies aut prohibent, victoriarum omnium toto orbe partarum auspices; hi maxime terrarum imperio imperant, extis etiam fibrisque haud aliter quam opimae victimae dis grati.* The story of Claudius may be illustrated by that of Papirius, 293 B.C. told by Livy X 40: the keeper of the chickens (*pullarius*) had falsely reported that they had eaten so greedily that some of the corn dropped to the ground, making the omen called *tripudium solistimum.* Just as the battle was about to begin, the consul learnt the truth from his nephew, born, as L. says, *ante doctrinam deos spernentem:* he replied that he must act on the official report, but that the *pullarius* should be placed in front of the battle, so that the vengeance of the Gods might fall on him, if he were guilty. This being done, the *pullarius* was at once killed by a chance javelin and the Romans won the victory.

**L. Junius Pullus**: shipwrecked at Pachynus in the same year, *neglectis auspiciis classem tempestate amisit damnationisque ignominiam voluntaria morte praevenit* (Val. M. I 5 4).

§ 8. **C. Flaminius Nepos**: carried an agrarian law as tribune B.C. 232 and in consequence became hateful to the aristocracy, who endeavoured to deprive him of his consulship in 223 B.C. on the pretence of faulty auspices; Fl. marched against the Insubrians in spite of their opposition, and won a great victory on the Addua; in 221 B.C. he was required to resign the

offices of *Mag. Eq.* on account of the squeaking of a mouse (Val. M. I 1 5). When elected consul for the 2nd time in B.C. 217, he left Rome without waiting for the usual ceremonies, fearing lest the senate should try to detain him *auspiciis ementiendis Latinarumque feriarum mora* (Liv. XXI 63). The disastrous omens which followed are related by Cic. *Div.* I 77 *cum contra Hannibalem legiones duceret et ipse et equus ejus ante signum Jovis Statoris sine causa repente concidit...Idem cum tripudio auspicaretur, pullarius diem proelii committendi differebat. Tum Fl. ex eo quaesivit, si ne postea quidem pulli pascerentur, quid faciendum censeret. Cum ille 'quiescendum' respondisset, Fl. 'praeclara vero auspicia, si esurientibus pullis res geri poterit, saturis nihil geretur'. Itaque signa convelli et se sequi jussit,* foll. See also Liv. l. c. and XXII 1. On the other hand Cic. *Div.* II 52 gives exx. of successful disregard of augury, e.g. Jul. Caesar crossing over to Africa, and of misfortune following strict regard to the auspices, e.g. Paulus at Cannae (*ibid.* 71).

**L. Caelius Antipater**: a contemporary of C. Gracchus; wrote a history of the Punic Wars. Cic. speaks of him as superior to the earlier historians (*Orat.* II 54) but of rough unpolished style, *Antipater paulo inflavit vehementius habuitque vires agrestes ille quidem atque horridas sine nitore ac palaestra* (*Leg.* I 6). He is frequently cited in *Divin.* e.g. I 48 (dream of Hannibal), I 56 (dream of C. Gracchus), I 78 (the prodigies which preceded Thrasymene). In June 45 B.C., the year before the publication of the *N.D.*, we find C. asking Atticus (XIII 8) for a copy of Brutus' epitome of the works of Caelius, at the same time that he asks for Panaetius περὶ προνοίας.

**cum magno vulnere**: 'entailing serious disaster', cf. § 80 *inesse cum magno usu.*

**eorum imperiis—paruissent**: that the prosperity of Rome was owing to its piety is constantly asserted, as by Horace *Od.* III 6. 5 *dis te minorem quod geris imperas;* by Cic. *N.D.* III 5 *mihi ita persuasi Romulum auspiciis, Numam sacris constituendis fundamenta jecisse nostrae civitatis, quae numquam profecto sine summa placatione deorum tanta esse potuisset;* in the speech of App. Claudius (Liv. VI 41) *auspiciis hanc urbem conditam esse, auspiciis bello ac pace, domi militiaeque omnia geri, quis est qui ignoret?* and a little below, in reference to the proposal to admit plebeians to the consulship, *eludant nunc licet religiones. Quid enim est, si pulli non pascentur, si ex cavea tardius exierint, si occinerit avis? parva sunt haec, sed parva ista non contemnendo majores vestri maximam hanc rem fecerunt: nunc nos tamquam jam nihil pace deorum opus sit, omnes caerimonias polluimus.* Cf. Val. Max. I 1 8 *non mirum igitur, si pro eo imperio augendo custodiendoque pertinax eorum indulgentia deorum semper excubuit, (in) quo tam scrupulosa cura parvula quoque momenta religionis examinari videntur.* Augustine wrote the *De Civitate Dei* to refute the charge brought by the heathen against their Christian fellow-countrymen, that the disasters of the age were owing to the neglect of the old deities who had

watched over the fortunes of Rome. The same charge is asserted by the heathen interlocutor in the *Octavius* of Min. F. (c. 6) and controverted by the Christian (c. 25). [cf. Polyb. VI 56 § 6 foll. Dionys. II 18, 19, 66—73, Plin. *Paneg.* 74 fin., Tertull. *Apol.* 25, Oros. VI 1 § 10, Prudent. *c. Symm.* II 488 *sed multi duxere dei per prospera Romam, quos colit ob meritum magnis donata triumphis* foll. J. E. B. M.]

**religione—superiores**: see my *Sketch of Ancient Philosophy* p. 207 foll., Gieseler *Ch. Hist.* I § 11, Preller, *R. M.* p. 113, *Harusp. Resp.* 19 *quam volumus licet ipsi nos amemus, tamen nec numero Hispanos, nec robore Gallos, nec calliditate Poenos, nec artibus Graecos, nec denique hoc ipso hujus gentis ac terrae domestico nativoque sensu Italos ipsos ac Latinos, sed pietate ac religione atque hac una sapientia, quod deorum immortalium numine omnia regi gubernarique perspeximus, omnes gentes nationesque superavimus.* Posidonius (as we read in Athenaeus VI 107) had remarked in one of his works on the *εὐσέβεια θαυμαστή* of the Romans.

§ 9. **Atti Navii**: the story of Attus is more correctly given *Div.* I 31, cf. ib. II 80, *R. P.* II 36. Here C. has written Hostilius instead of Tarquinius Priscus, and *suem* for *uvam.* According to the usual tradition Attus had promised to the Lares the largest bunch in his vineyard, if he could find a pig which had strayed, *itaque sue inventa ad meridiem spectans in vinea media constitit, cumque in quattuor partes vineam divisisset, tresque partes aves abdixissent, quarta parte in regiones distributa mirabili magnitudine uvam invenit.* For similar carelessness in C. cf. the confusion between Agamemnon and Ulysses (*Div.* II 63), Ulysses and Ajax (*Div.* II 82), Hector and Ajax (Gell. XV 6).

**lituus**: Cic. describes the famous *lituus* of Romulus (*clarissimum insigne auguratus,* which was found unhurt amid the ashes of the *curia* of the Salii on the Palatine) as *incurvum et leviter a summo inflexum bacillum* (*Div.* I 30). 'In works of art the end is always twisted into a spiral shape, like a bishop's crosier, of which it is supposed to have formed the model' (Rich *Companion* s.v.).

**crederem—gessisset**: 'the *lituus* might be contemptible if its only use were to discover a pig; not so when it enabled Host. to carry on his wars'. Livy (I 36) tells the story of Attus cutting through a whetstone with a razor, and says it was this which convinced the king of the truth of augury; hence *auguriis tantus honos accessit ut nihil belli domique postea nisi auspicato gereretur.* **ejus augurio,** 'at the augury, i.e. under the direction, of Attus', Abl. of Attendant Circumstances, cf. Roby § 1240 foll.

**neglegentia—omissa**: *disciplina omissa* Abl. Abs., *negleg.* Abl. of Cause. Plebeians descended from an ancestor who had held a curule office were termed *nobiles,* and included with the old patricians in the *nobilitas.* As the magistracies rarely went out of this class to a *novus homo, neg. nob.* is equivalent to the negligence of the magistrates, esp. the augurs themselves, see *Div.* I 25 quoted below. A few religious ceremonies (such as the *confarreatio*) were still confined to patricians: Tacitus *Ann.* IV 16 speaks

of their growing disuse *penes incuriam virorum feminarumque.* On the general subject cf. *Leg.* II 33 *dubium non est quin haec disciplina et ars augurum evanuerit jam et vetustate et neglegentia; Div.* I 25 *auspicia...nunc a Romanis auguribus ignorantur... a Cilicibus, Pamphyliis, Pisidis, Lyciis tenentur;* ib. 27 *nostri quidem magistratus auspiciis utuntur coactis. Necesse est enim, offa objecta, cadere frustum ex pulli ore, cum pascitur... Itaque multa auguria, multa auspicia, quod Cato ille sapiens queritur, neglegentia collegii amissa plane et deserta sunt;* Liv. XLIII 13 *non sum nescius ab eadem neglegentia, qua nihil deos portendere vulgo nunc credant, neque nuntiari admodum ulla prodigia in publicum neque in annales referri.* Hartung (*Rel. Röm.* I 259) remarks on the fact that Caesar makes no mention of auspices in his Commentaries. Even more conclusive as to the state of belief are such facts as the discussion between two augurs of C.'s time, C. Claudius Marcellus and Appius Claudius Pulcher, in which the former maintained that augury was merely a useful piece of state-craft; the contempt with which Caesar treated the repeated *obnuntiatio* of Bibulus, and the law of Clodius forbidding a magistrate to observe the heavens on comitial days. Cic. elsewhere contrasts the older form of augury from the observation of birds, as by Romulus and Remus, with the later from the entrails of victims, (*Div.* I 28) *ut nunc extis, quamquam id ipsum aliquanto minus quam olim, sic tunc avibus magnae res impetriri solebant.* So we read of omens from birds in Homer, but never of *extispicium:* it is only noticed whether the smoke ascends to heaven, how the victim behaves &c. Divination by the entrails was said to have been introduced by Prometheus: Herodotus derives it from Egypt, Lenormant from the Chaldeans (cf. Ezekiel xxi 21); it made its appearance in Athens about the time of Solon. (Bouché-Leclercq I 166 foll.)

**veritas spreta — species retenta:** 'the reality )( the show', see Wilkins on *Orat.* I 149. We find the same opposition *Div.* II 71 *ut sint auspicia, quae nulla sunt; haec certe quibus utimur, simulacra sunt auspiciorum, auspicia nullo modo,* where many exx. are given; instead of the *interpres et satelles Jovis,* we have now the caged fowls with their prepared *offa;* Marcellus used to journey in a closed litter, when on important business, that he might not be interrupted by unfavourable omens. So *Div.* I 28 *nihil fere quondam majoris rei nisi auspicato, ne privatim quidem, gerebatur; quod etiam nunc nuptiarum auspices declarant, qui re omissa nomen tantum tenent;* Dion. Hal. II 6 διέμεινε μέχρι πολλοῦ φυλαττόμενον ὑπὸ Ῥωμαίων τὸ περὶ τοὺς οἰωνισμοὺς νόμιμον... πέπαυται δ' ἐν τοῖς καθ' ἡμᾶς χρόνοις, πλὴν οἷον εἰκών τις λείπεται: he illustrates this by the way in which the auspices were taken at the appointment of a magistrate; an augur stands by him and announces lightning from the left, though nothing of the kind has occurred, and the bare fact of the announcement is equivalent to an omen; cf. Tac. *Ann.* XI 15 on the auspices in the time of the emperor Claudius.

**nulla peremnia servantur:** Festus p. 250 M. *Petronia amnis est in Tiberim perfluens, quem magistratus auspicato transeunt cum in Campo quid*

*agere volunt; quod genus auspici peremne vocatur* ('apparently this stream formed the southern boundary of the Campus Martius' E. H. Bunbury in *Dict. of Geog.* II p. 382): but, though the term was most often used in reference to a stream which had to be continually passed, it applied generally to all streams, Fest. p. 245 *peremne dicitur auspicari qui amnem aut aquam, quae ex sacro* (i. e. the fountain sacred to the deity of the stream) *oritur, auspicato transit*, and again under *manalis fons*. Servius (on *Aen.* IX 23 *summoque hausit de gurgite lymphas multa deos orans*) tells us that, when augurs, after receiving an augury, approached a stream, it was their custom to take up water in their hands and pray that the augury might not be broken by crossing. Compare the religious importance attached to the repairing of the *Pons Sublicius*, whence the name *pontifex* (Preller *R. M.* p. 517, Bouché-Leclercq IV 230 foll.).

**nulla ex acuminibus**: sc. *auspicia*. Bouché-Leclercq IV 185 describes these as 'signes fournis par la phosphorescence électrique des pointes des lances', and gives as the reason for their disuse, 'il était inutile de maintenir, à coté de procédés expéditifs et sûrs, des méthodes aléatoires ou d'une pratique difficile'. So Pliny (*N. H.* II 37 translated by Lydus *Ost.* I 5) connects them with the electric lights known to sailors as *Castorum stellae* (the fires of St Elmo); *exsistunt stellae et in mari terrisque. Vidi nocturnis militum vigiliis inhaerere pilis pro vallo fulgorem effigie ea; et antennis navigantium aliisque navium partibus insistunt... Hominum quoque capita vespertinis horis magno praesagio circumfulgent*, and Seneca *N. Q.* I 1 § 13 *in magna tempestate apparent quasi stellae velo insidentes: adjuvari se tunc periclitantes existimant Pollucis et Castoris numine...* § 14 *Gylippo Syracusas petenti visa est stella super ipsam lanceam constitisse. In Romanorum castris visa sunt ardere pila, ignibus scilicet in illa delapsis, qui saepe fulminum more animalia ferire solent... sed si minore vi mittuntur, defluunt tantum et insident.* In Livy this sign is often counted as a prodigy needing atonement, e. g. XXII 1, XXXIII 26, XLIII 13, also in Tac. *Ann.* XV 7 *pila militum arsere insigni prodigio*, Plut. *Sull.* c. 7, and apparently in [Caesar] *B. Afr.* 47 *eadem nocte quintae legionis pilorum cacumina sua sponte arserunt;* but in Dion. Hal. V 46 it is a good omen, 'flames were lit up about the points of the javelins, which shed a light as from torches throughout the greater part of the night; this was accepted by all as a sign of victory'. Probably it was the same feeling which made Homer dilate on the flashing of the spear of Diomede in the tent by night (*Il.* X 153) τῆλε δὲ χαλκὸς λάμφ' ὥστε στεροπὴ πατρὸς Διός, so of Idomeneus (XIII 245), of Achilles, the point of whose spear shone like Hesperus (XXII 319). For various erroneous explanations see Giese on *Div.* II 76. Schneider *Ecl. Phys.* refers to Ostertag *de Ausp. ex Acum.* Regensb. 1779. Prof. W. G. Adams of King's College tells me that "the electric lights described by Pliny and Seneca are well known phenomena, resembling the glow at the end of a pointed conductor which is placed on an electrical machine. It is formed by the gradual passage of electricity from the machine through the air to sur-

rounding conductors; or on the other hand the pointed conductor may be held in the hand and be directed towards the machine and so receive the gradual, or 'glow', discharge from it. If a cloud is the body charged with electricity, points directed towards it will carry off the discharge from it in the same way. So at sea this 'glow' discharge is frequently seen: the ship is charged with electricity from the earth or sea, but the density at points is very much greater than over other portions of the surface and so the discharges take place at the points." Compare Darwin's account of a scene he witnessed in the estuary of the Plata (*Naturalist's Voyage*, p. 39), 'the mast-head and yard-arm-ends shone with St Elmo's light; and the form of the vane could almost be traced, as if it had been rubbed with phosphorus. The sea was so highly luminous, that the tracks of the penguins were marked by a fiery wake, and the darkness of the sky was momentarily illuminated by the most vivid lightning'.

**nulla, cum viri vocantur**: this is the certain emendation of Sch. who refutes (*Opusc.* III 274 foll.) the explanations offered of the MS reading *nulli viri* by Turnebus, Beier and others. The phrase *vir. voc.* is technically used either of the summoning of the citizens by a magistrate, as by the censor (Varro *L. L.* VI 86 foll.), or of the calling together of the soldiers for a battle or review, as in the law cited by Varro ap. Macr. I 16 § 19 *viros vocare feriis non oportet; si vocarit, piaculum esto:* Servius (*Aen.* X 241) speaks of it as an ancient military term, see also Gell. XV 27 quoted below. The soldiers made their wills while the auspices were being taken, see Sabidius ap. Schol. Veron. ad *Aen.* X 241 (*is apud quem*) *in exercitu auspicium imperiumque erat, in tabernaculo in sella sedens auspicabatur coram exercitu pullis e cavea liberatis....Interim ea mora utebantur qui testamenta in procinctu facere volebant.*

**ex quo in procinctu testamenta perierunt**: the phrase *in procinctu* is used of an army in readiness for battle, Milton's 'war in procinct' (*P. L.* VI 19), cf. Festus pp. 43 and 225, *procincta classis dicebatur, cum exercitus cinctus erat Gabino cinctu confestim pugnaturus. Vetustius enim fuit multitudinem hominum, quam navium, classem appellari*, also p. 249 *procincta toga Romani olim ad pugnam ire soliti.* The *cinctus Gabinus* was a particular way of wearing the *toga*, so as to use part of it as a girdle, tying it in a knot in front. Servius (*Aen.* VII 612) says the ancient Latins, before they were acquainted with the use of defensive armour, *praecinctis togis bellabant, unde etiam milites in procinctu esse dicuntur*, (the *toga*, as Gellius tells us VII 11, was the only garment used in early times). Besides its proper use, of which we have exx. Tac. *Hist.* III 2, Ov. *Pont.* I 8 10, Gell. I 11, Plin. *N. H.* VI 22, the phrase is used metaphorically of readiness in general, as in Quint. X 1 § 2 *in procinctu habere eloquentiam.* The *testamentum in procinctu* was an informal will which might be made by soldiers on the field of battle. ['Compare our Nuncupative Will which may be made by seamen or soldiers in actual service, Stephen *Comm.* II p. 615, E. C. Clark *Early Roman Law* p. 123'. Swainson.] It is thus described by Gellius XV 27

*tria genera fuisse testamentorum accepimus, unum quod calatis comitiis in populi contione fieret; alterum in procinctu cum viri ad proelium faciendum in aciem vocabantur; tertium per familiae emancipationem, cui aes et libra adhiberetur;* cf. Gaius II 101. All that was required was to name the heir in presence of three or four witnesses (Plut. *Coriol.* c. 9). It was in use as late as B.C. 143, for Vell. Pat. II 5 mentions it as an incident of a forlorn attack by some soldiers under command of Metellus Numidicus, *facientibus omnibus in procinctu testamenta, velut ad certam mortem eundum foret.* It is strange that though C. here distinctly states that the custom was obsolete in his time, a statement not at all at variance with the allusion to it in *Orat.* I 228 (*tamquam in procinctu testamentum faceret sine libra et tabulis*), yet both G. Long, in *Dict. of Ant.*, and T. C. Sandars, on Justinian *Inst.* II 10, quote C. as witnessing that this form was still practised in his day. The case mentioned by Caesar *B. G.* I 39 is quite distinct: through terror of Ariovistus and his Germans *vulgo totis castris testamenta obsignabantur;* no *obsignatio* was required in the form *in procinctu.* In later times we read of further relaxations in regard to the military testament (Gaius II 109). **ex quo**: 'in consequence of which'; as the auspices were no longer taken, there was no longer an opportunity for the soldiers to make their wills. For this use of *ex quo* see *Div.* I 65 *ex quo et illud est Callani, Orat.* II 154 *referta quondam Italia Pythagoreorum fuit, ex quo quidam Numam fuisse Pythagoreum putant,* where Wilkins cites *Tusc.* V 17 *ex quo nec timor attingat.*

**cum auspicia posuerunt**: compare for this and what precedes, *Div.* II 76 *bellicam rem administrari majores nostri, nisi auspicato, noluerunt. Quam multi anni sunt, cum bella a proconsulibus et a propraetoribus administrantur, qui auspicia non habent? Itaque nec amnes transeunt auspicato nec tripudio auspicantur. Nam ex acuminibus quidem, quod totum auspicium militare est, jam M. Marcellus ille quinquies consul totum omisit, idem imperator, idem augur optimus.* The growth of the empire had led, as early as B.C. 327, to the practice of sending out proconsuls and propraetors to the provinces, instead of consuls and praetors, who alone had the *auspicia;* this practice was made law by Sulla's *Lex Cornelia de provinciis* B.C. 81, and carried further by the *Lex Pompeia* B.C. 52, which required an interval of five years to elapse before an ex-magistrate could succeed to the charge of a province. On his entrance into office the consul was said *accipere auspicia,* while in office *habere ausp.*, on his resignation *ponere ausp.*, see Bouché-Leclercq IV 238 foll.

§ 10. **at vero**: 'but assuredly it was the contrary among our ancestors; they did not neglect religion'. So in III 87, *Orat.* I 38, *Att.* V 11, but in *Div.* I 51 it merely confirms what precedes by a stronger case.

**imperatores**: III 15 *tu autem etiam Deciorum devotionibus placatos deos esse censes.* It is doubtful whether two or three of this family devoted themselves. The self-sacrifice of the father, P. Decius Mus, in the Latin war B.C. 340 is attested by Livy (VIII 9 where the rules and ceremonies of *devotio* are fully laid down) and Cic. *Div.* I 51, but questioned by Mommsen

*Hist.* I. 366 tr. His son of the same name fell at Sentinum B.C. 295, in the war against the Etruscans and their allies (Liv. X 28). According to Cic. (*Tusc.* I 89, *Fin.* II 61) the grandson followed the family tradition and perished at Asculum B.C. 279 in the war against Pyrrhus; but this is positively denied by Zonaras VIII 3, and Cic. speaks only of father and son in *Sext.* 48, *Cato* 43, *Parad.* I 13.

**dis immortalibus:** i.e. *dis Manibus Tellurique* Liv. VIII 9.

**capite velato:** *pontifex eum togam praetextam sumere jussit, et velato capite manu subter togam ad mentum exserta...sic dicere* ibid.

**verbis certis:** 'in a set form of words'='*conceptis sollemnibus verbis*' Seneca *Ep.* 67. The form (*carmen*) is given in Liv. l. c., cf. Marquardt *Staatsv.* III p. 268. Lescaloperius quotes an interesting passage from Augustine *C. D.* V 18, in which he compares the Decii with the Christian martyrs.

**Sibyllinis vaticinationibus:** the oldest collection of Sibylline prophecies is thought to have been made about the time of Solon and preserved at Erythrae, from whence it was brought to Magna Graecia and to Rome. The three books said to have been purchased by Tarquin were kept in the temple of Jupiter Capitolinus under the charge of the *xv viri*, and burnt with it 83 B.C. After the rebuilding, the senate sent to Erythrae to get a new copy of the prophecies, and we are told that the envoys were able to collect from private sources about 1000 verses (Lact. I 6 § 14). These were again revised under Augustus and Tiberius, and placed in the temple of Apollo Palatinus, where they were destroyed by fire about 400 A.D. The Sibylline books were consulted by order of the senate in all emergencies of state, see Liv. V 13, VII 27, &c. We learn from *Div.* II 110 that they were written in acrostics (like the 119th ps.), which C. regards as a proof that they did not proceed from an inspired frenzy. See further on III 5 *Sibyllae interpretes*, and Marquardt l. c. p. 336 foll.

**possum:** the opposite assertion is made by C. when arguing in his own person against divination, *Div.* II 52 *possum innumerabilia* (*haruspicum responsa commemorare*) *quae aut nullos habuerint exitus aut contrarios.* For the Ind. see n. on *longum est* I 19, and II 121, 126, 131.

Ch. IV. **atqui:** cf. I 19, II 18. 'I might quote many exx. of respect paid to auguries, but their reality is shown conclusively by the following fact'.

**augurum—haruspicum:** the anecdote which follows brings out clearly the contrast between the augurs, who were connected with the earliest history of Rome, and the Etruscan soothsayers. The former were concerned with the *auspicia ex avibus*, *ex quadrupedibus*, *ex caelo*, *ex tripudio*, *ex diris*, and also with consecrations; the latter with *extispicium*, *fulgura*, *ostenta*, cf. *Div.* I 35, (I will not believe) *aut in extis totam Etruriam delirare, aut in fulguribus errare, aut fallaciter portenta interpretari*, ib. I 3, 92, 93. An account is given of their founder Tages, ibid. II 50; their books (*Etruscorum haruspicini et fulgurales libri*) are mentioned I 72. One of C.'s laws (*Leg.* II 21) touches on their duties, *prodigia*, *portenta ad*

*Etruscos haruspices, si senatus jussit, deferunto; Etruriaque principes doctrinam doceto.* We often read of *haruspices* summoned from Etruria in order to avert calamities threatened by prodigies, e.g. 3 *Cat.* 19, Liv. XXVII 37: see Mayor on Juven. XIII 62 *prodigiosa fides et Tuscis digna libellis.*

**in P. Scipione**: 'in the case of Scipio'. Bouhier added *in*, which might easily be lost after the preceding *m*, and which appears to me to give a better sense than the simple date. P. Cornelius Scipio Nasica, surnamed Corculum from his wisdom and especially from his knowledge of law, was elected consul with C. Marcius Figulus in 162 B.C. He was also censor and pontifex maximus. He married his second cousin, the daughter of Scip. Afric. Maj., and was thus connected with Gracchus.

**Ti. Sempronius Gracchus**: consul in B.C. 177 and 163 (*iterum*), censor in B.C. 169, married a daughter of Scip. Afric. Maj. and was father of the two famous tribunes, with whom he is favourably contrasted by C. (*Off.* II 43), and of a daughter who married Scip. Afr. Mi. He gained a triumph over the Celtiberians and Sardinians. Perhaps the experience here related may have given him more respect for the *haruspices*, as C. tells a story of his consulting them about two snakes, which had found their way into his house (*Div.* I 36).

**crearet**: used sometimes of the assembly, as *Leg.* III 9, 10 *plebs creat tribunos*, Liv. XXIV 8 §§ 9 and 15, or even of the vote of one tribe, as Liv. V 18, XXIV 9 *praerogativa creant;* sometimes of the presiding magistrate who announces the result of the voting, *Leg.* III 9 *patres ex se produnto qui comitiatu creare consules rite possint*, *Att.* IX 9 where C. finds fault with Caesar's proposal that the praetor should preside at the election of consuls, *nos autem in libris habemus non modo consules a praetore, sed ne praetores quidem creari jus esse, idque factum esse numquam: consules eo non esse jus, quod majus imperium a minore rogari non sit jus, praetores autem, quod ita rogantur, ut collegae consulibus sint, quorum est majus imperium.* The presiding magistrate had considerable power; thus Livy XXII 35 § 3 *Terentius consul unus creatur, ut in manu ejus essent comitia rogando collegae.* He might even stop the election and recommend a different choice, Liv. X 22, XXIV 8, where Fabius ends his speech with the words *praeco, revoca (tribum)*; or he might allow another to speak against the apparent choice before the formal *renuntiatio* Liv. V 18, XXVI 22.

**rogator**: as the word *rogo* is the technical term for taking the votes of the assembly (e.g. in Liv. XXII 35 and *Att.* IX 9 quoted above), so *rogator* was used in old Latin for the presiding officer (cf. Lucil. *Sat.* 27 *consilium patriae legumque oriundus rogator*), especially in the fuller phrase *comitiorum rogator* used below. Its more common sense however, when used alone or (as in *Div.* II 75) with *centuriae*, is that of polling-clerk, as here and *p. red. in sen.* 28, where C. asks, in reference to the enthusiasm shown about his recall from exile, 'when did any one see men of such distinction acting as *rogatores diribitores custodes?*'

**ut eos rettulit—mortuus:** the story is told again *Div.* I 33, II 74 (*propter mortem repentinam ejus qui in praerogativa referenda subito concidisset*), *Quint. Fr.* II 2. **eos**=*eorum nomina* Sch. *Referre*, 'to report', is here used (1) of the clerk who gives in the list to the consul, (2) of the consul's reference to the senate, (3) of the senate's reference to the *haruspices*, (4) of the augurs' to the senate.

**in religionem venisse:** it would seem from this that, though the *morbus comitialis* would vitiate the proceedings, a death had not this effect, but merely caused an uncomfortable feeling that something must have gone wrong: it was a *prodigium*, but not a *vitium*.

**quos ad soleret:** for the subaudition of the Inf. see Draeg. § 119, p. 197[1] foll.; for omission of *ad eos*, *Phil.* I 4 *parum erat, a quibus debuerat, adjutus*, cited by Madv. § 321. Monosyllabic prepositions rarely follow their case in prose composition, except in legal or archaic phrases, or when they stand between the noun and its adjective, as *magna ex parte, certis de causis.* Probably *quos ad soleret* is a legal phrase like *quo de agitur* (see *Orat.* I 209 with Wilkins' n.) of which many exx. may be found in Bruns' *Fontes* cap. v pt. 4 §§ 7, 11, pp. 162, 163[3]; so Gell. XVI 4 § 2 *ad C. Laelium, Luciumve Cornelium sive quem ad uter eorum jusserit, proferes*, Bruns III 3 a *Lex Corn.* pp. 80, 81 *quam in quisque decuriam ita viator* (*praeco* &c.) *lectus erit, is in ea decuria viator esto.* We find exceptionally *ripam ad Araxis* (Tac. *Ann.* XII 51), *hunc post* (*Tusc.* II 15), *agrum quem per* (*Leg. Agr.* II 81 reading doubtful), cf. Lucr. I 841, III 140 with Munro's nn., Roby § 1805, Madv. § 469, Zumpt § 324. [Further exx. may be found in Ussing ad Plaut. *Amph.* 234, Kühner's *Ausf. Gramm.* II p. 425. It should be noted that the transposition is most frequent after a relative, as in the common phrases *qua de causa, qua ex causa, quam ob causam, qua de re, quam ob rem, quem ad modum;* so *quo pro agro* in Bruns p. 75[3] (*Lex agrar.* 74, 76, 80), but *pro eo agro* ib. 68, 73, *dies quam ad* Ter. *Phorm.* 524, see *Gr.* § 1038. R.]

**haruspices introducti:** see *Leg.* II 21 quoted above, Liv. XXXI 1 *ob hoc unum prodigium haruspices in senatum vocati.*

**justum:** 'regular', 'according to law', so *justa uxor Tusc.* I 85, *justus hostis* III 108, *justa pugna* Liv. XXII 28. [Very common in the lawyers, e.g. *justi liberi* Gai. III 72, *j. matrimonium* I 87, *j. dominium* IV 16, see Dirksen's *Man.* s. v. R.]

§ 11. **e patre audiebam:** so below § 14; we may probably interpret of C. himself what he here puts into the mouth of Balbus. The elder C. was a man of education and a friend of the jurists Scaevola and Aculeo.

**itane vero?** a phrase of indignation. Heind. cites exx. from 2 *Verr.* I 40, V 77, *Phil.* V 10, *Leg. Agr.* II 30, *Divin.* I 13.

**et consul:** it would have been enough if he had been simply consul with an augur at hand, how much more when he held both offices!

**Tusci ac barbari:** *Div.* II 75 *quid enim scire Etrusci haruspices aut de tabernaculo recte capto aut de pomerii jure potuerunt?* Dion I 30 says

they were wholly distinct from every other people in language manners and religious rites, cf. Liv. I 27, IX 36 *habeo auctores vulgo tum Romanos pueros, sicut nunc Graecis, ita Etruscis litteris erudiri solitos*, Gell. IX 7. They received the franchise B.C. 89. Mommsen Bk I c. 9 speaks of them as a nation quite distinct from the Graeco-Italic stock, and it still remains an unsolved problem to what family the Etruscan language belongs, see Deecke's Art. on Etruria in the new *Enc. Brit.* **barbari,** so Demosthenes speaks of Philip and the Macedonians as barbarians. The word was borrowed and applied at first even to Romans, e. g. Plautus *Trin.* prol. 19 *Philemon scripsit, Plautus vortit barbare*, so even Cic. *Orator* 160; but more commonly it is used of all who were not Greeks or Romans, e.g. *Fin.* II 49 *non solum Italia et Graecia, sed etiam omnis barbaria.*

**tenetis:** 'understand'. **interpretes comitiorum:** i. e. of the laws relating to the *comitia.*

**provincia:** cf. *Quint. Fr.* II 2 *habet quiddam Sardinia appositum ad recordationem praeteritae memoriae. Nam ut ille Gracchus augur, posteaquam in istam provinciam venit, recordatus est quid sibi in Campo Martio comitia consulum habenti, contra auspicia accidisset, sic tu* &c. Sardinia was made a *provincia* 235 B.C. but in 181 a fresh insurrection broke out, which was suppressed with great slaughter by Gracchus. He went there as proconsul 162 B.C.

**libros:** on the *lib. augurales* see Marquardt *R. St.* III 384. They are mentioned by *C. Div.* II 42, 73, *pro Domo* 39, 40, *Att.* IX 11. **collegium:** the college of augurs consisted of 15 members according to Sulla's constitution. Cic. was elected B.C. 53 (*N. D.* I 14).

**vitio captum fuisse:** Plup. Inf. as in *Leg. Man.* 20 *dico Luculli adventu maximas Mithridatis copias omnibus rebus instructas fuisse urbemque Cyzicenorum obsessam esse* (in direct narration *copiae instructae erant urbsque obsidebatur*), Madv. § 408. For the story compare Liv. XLV 12 *jam primum cum legionibus ad conveniendum diem dixit* (*consul*), *non auspicato templum intravit. Vitio diem dictam esse augures, cum ad eos relatum est, decreverunt;* IV 7 *tertio mense augurum decreto, perinde ac vitio creati, honore abiere, quod C. Curtius, qui comitiis eorum praefuerat, parum recte tabernaculum cepisset;* VIII 15 *religio inde injecta de dictatore, et cum augures vitio creatum videri dixissent, dictator magisterque equitum se magistratu abdicarunt;* ibid. c. 23, Bouché-Leclercq IV 250 n.

**tabernaculum captum fuisse hortos Scipionis:** when the augur was about to take the auspices he stood with his *lituus* in his hand, facing the south, as it would seem, according to the oldest usage, though this varied very much in later times (see Bouché-Leclercq IV p. 20 foll.), and marked out the sky, called *templum majus*, with a line from N to S called *cardo* and another bisecting it at right angles, called *decumanus.* He then drew the lines of a corresponding *templum minus* on the ground immediately surrounding the spot where he stood, and on the centre of this he pitched his tent (*tabernaculum cepit*). The tent had an opening

towards the south and there the augur sat waiting for the auspices. Some of the edd. omit *hortos Scipionis* as a gloss, but it is not such a gloss as we should have expected from an ordinary scribe, and its correctness has been recently confirmed by the discovery of the MS of Granius Licinianus, edited 1858 by a 'heptas' of Bonn philologers. (The writer is variously assigned to the age of Augustus or to that of the Antonines or even later.) In p. 11 of this there occurs a fragment thus restored *se, cum augurales libros legeret, consules vitio creatos esse doctum, quod denuo extra pomerium auspicari debuisset, cum ad habenda in campo comitia contenderet, quoniam pomerium finis esset urbanorum auspiciorum; se vero in villa Scipionis* (VILLAM • • • NIS in MS) *tabernaculum posuisse et quom ingrederetur pomerium*... The gardens of Scipio are mentioned *R. P.* I § 14 *cum P. Africanus feriis Latinis constituisset in hortis esse*, and *Lael.* 25 *tum magis id diceres, Fanni, si nuper in hortis Scipionis, cum est de republica disputatum, affuisses;* in *Lael.* 7 we read of the augurs meeting in the gardens of D. Brutus for the purpose of practising their art, where Reid says 'as the augurs required for their practice an open space whence they could get an uninterrupted view of the sky, they usually met in some gentleman's park outside the city'. If the reading is to be altered, I should prefer Lamb.'s *in hortis*, which seems to have been the common phrase, to Sch.'s *ad hortos*, which would merely state vaguely that the auspices were taken near the gardens. We cannot, I think, take the phrase to be *orat. obl.* of *tabernaculum captum est horti Scipionis*, like *initium fuit ludi Capitolini*, for that would imply that the *vitium* lay in selecting this spot, and not in forgetting to renew the auspices on crossing the *pomerium;* but Mr Roby suggests that *hortos Scipionis* may be added in apposition, 'he remembered that his augural tent—the gardens of Scipio—had been faultily taken'. By *vitium* was meant any irregularity which might render the proceedings invalid, see Bouché-Leclercq IV 249 foll. and on the mode of taking the auspices generally p. 187 foll., also Marquardt l.c. III 386, Mommsen *R. Alt.* $1^2$ 101.

**pomerium:** (*pone murum*), this was an ideal line, running within the actual wall, the course of which was marked by stone pillars placed at certain intervals. ['Mommsen who has carefully examined the meaning of *pomerium* (*Forschungen* II p. 23) considers that it properly denoted the space occupied by the city inside the wall, excluding both the wall itself and the unoccupied strip of land on the inner side of the wall. Varro (*L. L.* V 143) and others describe it as the bounding line of the inclosed town. The two conceptions are easily confused, as *fines* often equals *ager finitus.* Livy (I 44) is wrong in making *pomerium* include the wall with a free space both on the inside and outside'. R. Mommsen's view would suit one of the phrases here used, *pom. intrasset*, but not the other, *pom. transiret.*] It was the boundary of the city from the augur's point of view, *facit finem urbani auspicii* (Gell. XIII 14); all the non-urban auspices, e. g. all relating to the army and therefore to the *comitia centuriata* (in

which the people were considered to form an army), had to be taken outside the *pomerium*. The irregularity committed by Gracchus is explained as follows by Bouché-Leclercq IV 230, 'we must imagine the magistrate who leaves the city, as carrying with him in a manner the auspices and the temple. Il fallait qu'avant de partir, il allât chercher cet attirail abstrait sur le Capitole, où il consultait tout d'abord Jupiter : il marchait alors, vers la porte, s'arrêtait un instant sur le *pomerium* pour interroger mentalement le ciel et poursuivait sa route, environné de son temple idéal'; p. 235 'a magistrate returning to the city lost the military auspices and had to go through all the ceremonies again to acquire them. Gracchus forgot this on his way back from the city to the Campus Martius and passed the pomerium without going through the necessary formalities'. On the other hand, Mommsen (*Staatsrecht* $1^2$ p. 93, 100), considers that the negligence was shown in passing the stream Petronia; this however is not in accordance with C.'s words *cum pomerium transiret* 'in crossing'. Plutarch gives a different account from either (*Marcell.* 5): when a magistrate seated in the *tabernaculum* to observe the auspices is compelled for any reason to return to the city before completing his observations, he is bound to begin the auspices again in a new *tabernaculum;* Gracchus had broken this rule and therefore the elections held under his presidency were declared void. Plutarch's explanation seems to me the most natural: Leclercq's agrees best with C. but, as far as I know, there is no definite statement in any ancient author in regard to ceremonies to be observed in passing the *pomerium*.

**habendi senatus**: the phrase was used of the presiding magistrate, like *habere censum, comitia, delectum, ludos*. All religious scruples were laid before the senate, Gell. XIV 7, Liv. XXII 1.

**rem ad senatum**: sc. *rettulerunt* as above.

**senatus ut abdicarent**: sc. *decrevit*. On the omission of the verbs in rapid narration see Madv. *Fin.* I 9, Draeg. § 116. *Abdicarent* here used absolutely: in general we find *abdicare se consulatu*, or *abdicare consulatum*.

**haud sciam an**: 'I might perhaps say', more diffident than the Ind., cf. *Orat.* I 255 *haud sciam an tu primus ostenderis*, where Wilkins cites *Orat.* II 18, 72, 209, and *Lael.* 51. Seyffert, in his n. on the last, speaks of the use of the Subj. as 'fast übertreibende Form der Bescheidenheit u. Zurückhaltung'.

**quod celari posset**: 'though it might have been concealed'.

**haerere religionem**: 'that guilt (lit. sense of guilt) should adhere to the republic'. *Haereo* is often thus used with *peccatum, crimen* &c. either with *in* or the dative.

**deponere**: subaud. *maluerunt* from *maluit*, Draeg. § 119 II 2.

**punctum temporis**: I 52, 67, II 94.

§ 12. **magna augurum—divina**: the natural place for this sentence would be after an argument to prove the authority of the augurs, and

before an argument to prove the authority of the *haruspices*. It is impossible that C. could have meant it to stand where it does. Perhaps the passage may have been rewritten and this sentence be a relic of the earlier form. On C.'s idea of the importance of the augur, see *Leg.* II 31 cited on *N. D.* I 14.

**qui videat**: see n. on *qui consideret* I 43.

**quorum interpretes sunt**: this argument, called the *arx Stoicorum* in *Div.* I 10, is given there in a slightly different form, *sic reciprocantur ut et, si divinatio sit, di sint, et si di sint, sit divinatio*, to which C. retorts *Div.* II 41 *multo est probabilius, 'non est autem divinatio, non sunt ergo di'*. Not unlike is the argument ridiculed in Lucian *Jup. Trag.* 51 εἰ γὰρ εἰσὶ βωμοί, εἰσὶ καὶ θεοί· ἀλλὰ μὴν εἰσὶ βωμοί, εἰσὶν ἄρα καὶ θεοί, to which the opponent replies ἢν πρότερον γελάσω εἰς κόρον, ἀποκρινοῦμαί σοι, id. *Hermot.* 70 'most arguments are based upon things which are disputed, and others on things which have nothing to do with the matter, ὥσπερ εἴ τις οἴοιτο ἀποδείξειν εἶναι θεοὺς διότι βωμοὶ αὐτῶν ὄντες φαίνονται'. So Sext. Emp. IX 132 εἰ μή εἰσι θεοί, οὐδὲ μαντικὴ ὑπάρχει, ἐπιστήμη οὖσα θεωρητικὴ καὶ ἐξηγητικὴ τῶν ὑπὸ θεῶν ἀνθρώποις διδομένων σημείων, οὐδὲ μὴν θεοληπτικὴ καὶ ἀστρομαντική, οὐ λογική, οὐχ ἡ δι' ὀνείρων πρόρρησις· ἄτοπον δέ γε τοσοῦτο πλῆθος πραγμάτων ἀναιρεῖν πεπιστευμένων ἤδη παρὰ πᾶσιν ἀνθρώποις· εἰσὶν ἄρα θεοί. There is a certain analogy between this and two Christian arguments, the one from the nature of God inferring the antecedent probability of revelation: 'if there be a wise and good God, it is probable that he would reveal something of his will to men'; the other from the fact of prophecy inferring a divine Inspirer, 'the prediction of particular future events is beyond the power of man, but the life and death of Christ, and the dispersion of the Jews, are particular events predicted by Jewish prophets centuries before they came to pass, therefore these prophets were gifted with a superhuman power'. Cicero's real belief in regard to divination is stated *Leg.* II 32, *si deos esse concedimus eorumque mente mundum regi et eosdem hominum consulere generi et posse nobis signa rerum futurarum ostendere, non video cur esse divinationem negem. Jam vero permultorum exemplorum et nostra est plena res publica et omnia regna......ex augurum praedictis multa incredibiliter vera cecidisse.* But though he accepts these stories as proofs of the former reality of divination, he regards it now as a lost art. The best statement of the Stoic argument is to be found *Div.* I 82; while maintaining that it was inconsistent with the divine goodness to hide the future from man, they denied that this involved any departure from the established order of the universe: signs and portents were the results of a pre-established harmony, *Div.* I 118 *non placet Stoicis singulis jecorum fissis aut avium cantibus interesse deum; neque enim decorum est nec dis dignum nec fieri ullo pacto potest; sed ita a principio incohatum esse mundum, ut certis rebus certa signa praecurrerent, alia in extis, alia in avibus, alia in fulgoribus, alia in ostentis, alia in stellis, alia in somniantium visis, alia in furentium vocibus.*

**at fortasse**: cf. *Div.* I 24 *at non numquam ea quae praedicta sunt minus eveniunt. Quae tandem id ars non habet? earum dico artium quae conjectura continentur et sunt opinabiles. An medicina ars non putanda est? quam tamen multa fallunt?* and so navigation, tactics &c. Divination rests on conjecture; *ea fallit fortasse non numquam, sed tamen ad veritatem saepissime derigit*, being founded on long experience and observation. This answer is criticized below (III 15).

**ne aegri quidem**: Arist. *Rhet.* I 1 20 οὐδὲ γὰρ ἰατρικῆς τὸ ὑγιῆ ποιῆσαι, ἀλλά, μέχρις οὗ ἐνδέχεται, μέχρι τούτου προαγαγεῖν· ἔστι γὰρ καὶ τοὺς ἀδυνάτους μεταλαβεῖν ὑγιείας ὅμως θεραπεῦσαι καλῶς. The same comparison is used by Cyril *c. Jul.* X p. 354 D, in answer to the objection that there were rogues among Christians, 'The Gospel may fail, as medicine fails, from the patient refusing to carry out the prescription'.

**medicinae**: I have adopted Madvig's emendation of the *medicina* of MSS, as it is certainly the more natural construction, and involves no alteration of the letters *medicinaest*. Madv. himself objected to the old reading on the ground that *Latine dicitur 'medicina ars non est', non 'ars nulla'* (keine Wissenschaft), but Mu. gives exx. of the adjectival use of *medicina*, as Varro *L. L.* V 93 *ab arte medicina...medicus dictus*, Quint. XII 11 § 24 *rei militaris et rusticae et medicinae;* cf. too Hyginus *Fab.* 274 *Chiron artem medicinam chirurgicam instituit* cited by L. and S.

**deorum natura**: 'not the divinity, but human guess-work blundered'; for *natura* cf. I 23 n.

**omnes omnium gentium**: I 46, for the *consensus gentium* see nn. on I 43, where it is asserted by the Epicurean. Sext. Emp. IX 60 gives as the 1st of four proofs alleged by theologians τὴν παρὰ πᾶσιν ἀνθρώποις συμφωνίαν, see ib. 61—74 with notes of Fabricius. **summa constat**: 'the main point', Sch. cites *Acad.* II 29 *cum summa consisteret, Fin.* V 12 *nec in summa tamen ipsa varietas est.*

**innatum est**: the doctrine of Innate Ideas was not held in the strict sense by the early Stoics any more than by the Epicureans, but we find it asserted by C. in more than one passage, e.g. *Fin.* V 59 (*natura homini*) *dedit talem mentem, quae omnem virtutem accipere posset, ingenuitque sine doctrina notitias parvas rerum maximarum, et quasi instituit docere et induxit in ea quae inerant tamquam elementa virtutis. Sed virtutem ipsam incohavit, nihil amplius. Itaque...artis est ad ea principia quae accepimus consequentia exquirere, quoad sit id quod volumus effectum; Tusc.* I 30. In all probability C. here follows Posidonius, see below n. on § 62 *aeterni*, and Corssen *de Posid. Rhod.* p. 30 foll., also Zeller IV p. 659[3]. **insculptum**: I 45, *Acad.* II 1 *in animo res insculptas habebat.*

**animo...animis**: the Sing. is used generically of man in the abstract, the Pl. of different individuals variously affected by different grounds of belief, cf. Draeger § 7. 3.

Ch. V § 13. **varium est**: 'there is a variety of opinions', 'is variously viewed'.

A b. *further explained. Cleanthes derives the consensus of belief from four causes,* (1) *presentiments of the future* (*i.e. divination, just treated of*), (2) *the blessings of life,* (3) *terrible and unusual phenomena of nature,* (4) *the order of the heavenly bodies* (treated of in § 4). §§ 13—15.

Bywater (Journal of Philology VII p. 76 foll.) shows that the substance of this section is probably derived from Aristotle through Cleanthes and Posidonius. 'The psychical and cosmical causes, the 1st and 4th in Cleanthes' series', are stated by Sext. Emp. IX 20 to have been also alleged by Aristotle (in the dialogue *de philosophia*, as is generally supposed), as the grounds of religious belief. 'In such abnormal psychical phenomena as dreams, ecstasy, enthusiasm, the second-sight with which we credit the dying (the phenomena, in short, on which, according to the ancient distinction, natural as opposed to artificial divination was based) Aristotle found an explanation of the way in which the mind comes to divine, or have a presentiment of, the existence of other minds greater and mightier than anything human'. Sextus (ibid. 21 and 26) goes on to describe the effect of the contemplation of the ordered movements of the sun and stars on the mind of the observer. He gives this very succinctly, but Bywater from a comparison of other writers, makes it probable that in the original dialogue the two causes were connected in some such way as follows: 'the presentiment, originating in the core of our inner psychical experience, acquires a new force and import, as soon as we reflect on the facts of the universe outside us; we seem introduced into a temple, like that at Eleusis, only more august and solemn, because the figures (the heavenly bodies), which we see circling around us, are not lifeless or made with hands, and the celebrants are not men, but the immortal gods'. Compare several passages in this book, in which the universe is compared to a palace or mansion, §§ 15, 17, above all § 95. We must take care to distinguish the historical question, how man arrived at the idea of God, of which Cleanthes here treats, from the philosophical question, what is the validity of that idea. Sextus in like manner treats separately of the two, discussing the former, *πῶς οἱ πρότερον νόησιν θεῶν ἔσχον*, in §§ 14—47, the latter, *εἰ εἰσὶ θεοί*, in the sections which follow. Lucretius deals with the former V 1161—1240. In § 15 Cic. seems to be rather trenching on the philosophical ground.

**informatas notiones** = *informatio* I 100. On the argument see III 16.

**eam quae orta esset**: in this and the following clause (*quam cepérimus*) Cic. carelessly predicates of *causa* what should have been predicated of *notio*. It is only in regard to the 4th that he extricates himself from the confusion (*quartam esse aequabilitatem*). Observe the change of tense, *quae orta esset—quam ceperimus—quae terreret.* The 1st is regarded as a single act antecedent to the action of the principal verb, the 3rd is continuous, going on at the same time with the principal verb, in the 2nd C. treats

the subordinate clause from his own, the present, standpoint, cf. *Fam.* XIV 7 *quid causae fuerit postridie intellexi,* 10 *Phil.* 9 *quo consilio redierim initio audistis, post estis experti,* and others cited by Draeg. § 131 b.

**caeli temperatione**: below § 49 *solis tum accessus modici tum recessus et frigoris et caloris modum temperant.*

**commoditas**: the cause and occasion of the *commoda* mentioned before. St Paul at Lystra appeals to the same evidence, Acts xiv 17.

§ 14. **quae terreret**: it is not correct to say that 'the cause terrifies men', the terror itself is the cause. This cause is admitted both in III 16 and in *Div.* II 42 *nonne perspicuum est ex prima admiratione hominum, quod tonitrua jactusque fulminum extimuissent, credidisse ea efficere rerum omnium praepotentem Jovem?* So Petron. fr. 27 Büch. *primus in orbe deos fecit timor, ardua caelo fulmina cum caderent;* Democritus ap. Sext. Emp. IX 24 ὁρῶντες τὰ ἐν τοῖς μετεώροις παθήματα οἱ παλαιοὶ τῶν ἀνθρώπων, καθάπερ βροντὰς καὶ ἀστραπὰς κεραύνους τε καὶ ἄστρων συνόδους ἡλίου τε καὶ σελήνης ἐκλείψεις, ἐδειματοῦντο θεοὺς οἰόμενοι τούτων αἰτίους εἶναι, see n. on I 54 *quis non timeat.* Cf. Ps. xxix and Job xxxviii.

**fulminibus**: the portents which follow are often mentioned in Livy, e.g. lightning XXIV 10, XXV 7, XXXVI 37 (cf. *Div.* I 16); storms XL 2, 45; pestilence XL 19; earthquake III 10, IV 21, XXX 38; noises XXIX 14, XXXI 12, cf. *Div.* I 35 *terrae saepe fremitus, saepe mugitus, saepe motus multa nostrae rei publicae, multa ceteris civitatibus gravia et vera praedixerunt, Har. Resp.* 20 *quod in agro Latiniensi auditus est strepitus cum fremitu,* ib. 62 *cogitate genus sonitus ejus, quem Latinienses nuntiarunt: recordamini illud quod...nuntiatur terrae motus terribilis...etenim haec deorum immortalium vox, haec paene oratio judicanda est, cum ipse mundus, cum aer atque terrae motu quodam contremiscunt et inusitato aliquid sono incredibilique praedicunt;* showers of stones I 31, VII 78, XXI 62, XXX 38, (*creta pluit*) XXIV 10, of blood (*carne pluit*) III 10, XXIV 10, XXXIX 46, 56; Cic. here speaks more cautiously (*quasi cruentis*), see his explanation *Div.* II 58 *decoloratio quaedam ex aliqua contagione terrena maxime potest sanguini similis esse,* such prodigies *in metu et periculo cum creduntur facilius, tum finguntur impunius.* See *Eng. Cycl.* under 'Aerolites' for the actual facts.

**nimbis**: so Lucretius places the storm-cloud among the phenomena of nature, which he conceived to be the cause of superstition (VI 489), *haud igitur mirumst si parvo tempore saepe tam magnis nimbis tempestas atque tenebrae coperiunt maria ac terras inpensa superne;* and in the quotation from Aristotle (below § 95) we find *nubium magnitudinem* noticed as one of those phenomena which should naturally incline men to the belief in a Divinity; cf. Ruskin *Modern Painters* v 137 foll., on the Greek idea of the clouds.

**vastitate** seems here to mean the desolation produced by some natural cause, as drought or flood or frost or hurricane; or we might take it to refer to the religious influences of lonely places, of which Lucretius speaks IV 580—594, or lastly to a devastating plague, such as

we find ascribed to the wrath of the gods in *Pis.* 85. [In the *formula lustrationis* in Cato *R. R.* 14 prayer is made *uti tu morbos visos invisosque viduertatem* (?) *vastitudinemque, calamitates* (blight) *intemperiasque prohibessis.* R.]

**labibus**: ('landslip') corrected from *lapidibus* after *Divin.* I 78 *multis locis labes factae sunt*, and 97 quoted below. It occurs in the Digest, XIX tit. 2 l. 15, and 62. [Add Festus M. p. 210 *avertas morbum, mortem, labem, nebulam, impetiginem*, and an old prophecy from an Etruscan seer contained in the *Gromatici* (p. 351 Lachm.) *tum etiam terra a tempestatibus vel turbinibus plerumque labe movebitur.* R.]

**praeter naturam portentis**: for exx. of an adjective supplied by adverbs or adverbial phrases, see Nägelsb. § 75, and below § 87 *solarium aut discriptum aut ex aqua*, § 144 *introitus cum flexibus*, § 166 *deorum saepe praesentiae.* **hominum**: e.g. a boy with an elephant's head Liv. XXVII 11, cock and hen changed into man and woman, XXII 1. **pecudum**: e.g. *partus mulae Div.* I 35, lamb with swine's head Liv. XXXI 12, pig with man's head XXVII 4, ass with three heads XLII 20, cow speaking III 10, cf. Juven. XIII 65 foll. with the nn.

**facibus caelestibus**: Lucretius V 1188 enumerates meteors and shooting-stars among the grounds of religious belief: (men placed in heaven the abodes of the gods, because there were seen there) *luna, dies, et nox, et noctis signa severa, noctivagaeque faces caeli flammaeque volantes, nubila, sol, imbres, nix, venti, fulmina, grando, et rapidi fremitus et murmura magna minarum;* see on their nature Arist. *Meteor.* I 4 *αἱ φλόγες αἱ καόμεναι καὶ οἱ διαθέοντες ἀστέρες καὶ οἱ καλούμενοι δαλοὶ καὶ αἶγες* with Ideler's nn. and Sen. *N. Q.* I 1, who speaks of their being seen at the deaths of Augustus and Germanicus and the fall of Sejanus.

**cometas**: one of the portents in C.'s poem on his consulship, *Div.* I 18 *tremulos ardore cometas;* called *diri cometae Geo.* I 488. Pliny (*N. H.* II 22) after a minute description continues *terrificum magna ex parte sidus ac non leviter piatum, ut civili motu Octavio consule, iterumque Pompeii et Caesaris bello;* Seneca, who (following Arist. *Meteor.* I 6) treats of comets *N. Q.* VII, makes the unlucky remark (c. 17) that Nero's comet *cometis detraxit infamiam;* he also prophesies (c. 24), with that sanguine belief in human progress which makes one of the chief attractions of his writings, that the movements of comets will one day be understood, *veniet tempus quo posteri nostri tam aperta nos nescisse mirentur.* The comet which appeared after the death of Jul. Caesar was made an object of worship by Augustus (Plin. *N. H.* II 25). See Mayor on Beda *Hist. Eccl.* IV 12. **cincinnatas**: the usual translation of *κομήτης* is *crinita*, as Plin. *N. H.* II 22 *cometas Graeci vocant, nostri crinitas; cinc.* is found elsewhere in this sense only in the Schol. to Juv. VI 207.

**nuper**: about ten years before the date of the supposed dialogue.

**bello Octaviano**: Cn. Octavius, consul in 87 B.C., a partisan of Sulla (who was then engaged in the war against Mithridates), opposed the

attempts of his colleague Cinna in favour of Marius and after bloody conflicts was put to death by Censorinus. Cic. tells us (*Div.* I 4) that the prophecies of a certain Culleolus were rife at the time.

**calamitatum**: the proscriptions of Marius and Sulla.

**sole geminato**: cf. *R. P.* I 15 *visne igitur videamus quidnam sit de isto altero sole quod nuntiatum est in senatu?* ib. 17, 19, 31, *Divin.* I 97 *nam et cum duo soles visi essent et cum tres lunae et cum faces et cum sol nocte visus esset et cum e caelo fremitus auditus* (*responsis haruspicum paruit senatus*). *Delata etiam ad senatum labes agri Privernatis cum ad infinitam altitudinem terra desedisset, Apuliaque maximis terrae motibus conquassata esset;* Seneca *N. Q.* I 11 explains the phenomenon on natural principles, *historici soles vocant; et binos ternosque apparuisse memoriae tradunt; Graeci parelia appellant...sunt autem imagines solis in nube spissa et vicina, in modum speculi;* Pliny *N. H.* II 31 mentions several occasions on which they were seen. It is curious that Cic. in his list of prodigies omits eclipses, which were the most generally feared of all, and which he himself mentions among the portents which accompanied the Catilinarian conspiracy, *Div.* I 18.

**Tuditano**: C. Sempronius Tud. consul with M'. Aquilius 129 B.C.: on the death of Africanus see III 80.

**evenerat**: Plup. because attracted to the time of the parenthetic *ut audivi*, see below § 23 on *dixeram*.

**sol alter**: Hor. *Sat.* I 7 24 *solem Asiae Brutum appellat.*

§ 15. **aequabilitatem motus, conversionem caeli**: Sch., adopting Ernesti's correction *conversionumque*, compares *Leg.* I 24 *perpetuis cursibus conversionibusque caelestibus* and *Tusc.* V 69 *totius mundi cursus conversionesque* as exx. of C.'s way of adding a limiting clause. Dav.'s reading *in conversione* may be illustrated by § 54 *hanc in stellis constantiam.* I think however that the text of the MSS is more rhythmical than either of the emendations, and that there is no reason why C. may not have separated the idea of uniformity of motion from that of its concrete embodiment, the revolution of the heavenly bodies. Thus Aristotle treats of the kinds and qualities of motion in the abstract, apart from our own experience, cf. *Met.* Λ 7, p. 1072 ἔστι τι ἀεὶ κινούμενον κίνησιν ἄπαυστον, αὕτη δ' ἡ κύκλῳ· καὶ τοῦτο οὐ λόγῳ μόνον ἀλλ' ἔργῳ δῆλον and on the uniformity of the heavenly movements *Cael.* II c. 6. Cicero is probably translating some such phrase as ὁμαλότητα κινήσεως, φορὰν οὐρανοῦ. We find *aequab. motus* again below § 48. Sext. Emp. IX 26 mentions that some (i. e. Aristotle) refer the origin of religious belief to τὴν ἀπαράβατον καὶ εὔτακτον τῶν οὐρανίων κίνησιν.

**distinctionem**: fr. *distinguo* 'to prick in different places', hence *immensi corporis pulchritudo distinguitur astris* 'spangled with' (Sen. *N. Q.* VII 1), and below 95 *caelum astris distinctum.* The word implies an intentional variety, one shade or colour setting off another (πεποικιλμένα) as in mosaic, cf. § 99 *insulae litoraque collucent distincta* ('studded') *tectis et*

*urbibus.* Here the idea intended is not simply 'difference' (as L. and P.), but as below § 104, the dotting about of stars, the varied grouping of constellations.

**utilitatem**: edd. adopt the conjecture of Manutius, *varietatem*, which is more in agreement with the context, but I think the text may be defended. Beauty and utility are often joined as the two characteristics of the universe, see below, § 87, 155, *Orat.* III 178 *ut in plerisque rebus incredibiliter hoc natura est ipsa fabricata, sic in oratione, ut ea, quae maximam utilitatem in se continerent, plurimum eadem haberent vel dignitatis vel saepe etiam venustatis:* it is then shown that it is so with the heavenly bodies. Cleom. I 1 gives, as one proof of a governing Reason, that all things μεγαλωφελεστάτας παρέχεσθαι τὰς χρείας, cf. Philo *Leg. All.* p. 107 (man learnt the knowledge of God) θεασάμενος οὐρανὸν ἐν κύκλῳ περιπολοῦντα, ... πλανήτας δὲ καὶ ἀπλανεῖς ἀστέρας κατὰ ταὐτὰ καὶ ὡσαύτως κινουμένους, ἐμμελῶς τε καὶ ἐναρμονίως καὶ τῷ παντὶ ὠφελίμως, Plato *Epin.* 982 τοῦτο δ' εἶναι τὴν τῶν ἄστρων φύσιν, ἰδεῖν μὲν καλλίστην, πορείαν δὲ καὶ χορείαν πάντων χόρων καλλίστην καὶ μεγαλοπρεπεστάτην χορεύοντα πᾶσι τοῖς ζῴοις τὸ δέον ἀποτελεῖν. Nor is it necessary to suppose that C. would have been precluded from speaking of the *utilitas* of the sun and stars here, because he has spoken of the *commoda* received from the *temperatio caeli* in § 13. He is far from punctilious about his divisions, and he might treat of the benefit of light apart from that of heat to which he confines himself in the earlier §.

**pulchritudinem**: *Plac. Phil.* I 6 καλὸς δὲ ὁ κόσμος· δῆλον δὲ ἐκ τοῦ σχήματος καὶ τοῦ χρώματος καὶ τοῦ μεγέθους καὶ τῆς περὶ τὸν κόσμον τῶν ἀστέρων ποικιλίας, see below § 98 foll.

**ea fortuita**: on the Neut. instead of the Fem. see § 7 *ea ostendi* and *Leg.* II 28.

**ut**: followed by *multo magis* instead of *sic.* The comparison of the world to a house is here used to prove that it must be governed and directed by reason; in § 17 it is used to prove that it cannot be made simply for man; in § 95 to prove that there are gods and that it must be their handiwork.

**rationem, modum, disciplinam**: 'arrangement, proportion, order', cf. *disciplina domus* Suet. *Oct.* 65.

**immensa et infinita**: I 26 n.

**mentita sit**: 'disappointed expectation'. There has been no infringement of law, no exception to the rule, cf. Pseudo-Arist. *de Mundo* 5 § 9 τίς δὲ γένοιτ' ἂν ἀψεύδεια τοιάδε ἥν τινα φυλάττουσιν αἱ καλαὶ καὶ γόνιμοι τῶν ὅλων ὧραι θέρη τε καὶ χειμῶνας ἐπάγουσαι τεταγμένως ἡμέρας τε καὶ νύκτας εἰς μηνὸς ἀποτέλεσμα καὶ ἐνιαυτοῦ;

A e. *Argument of Chrysippus:* (1) *the universe shows the operation of a superhuman i. e. of a divine power* § 16; (2) *the universe*

*is too beautiful to be the habitation of man alone, it implies a superhuman inhabitant* § 17.

Ch. VI § 16. **quamquam—tamen**: 'clever as he is, he has here so far surpassed himself, that his words sound like a *vox naturae*, he speaks like one inspired'. On the argument of Chrysippus see III 25 and Lact. *Ira* c. 10.

**atqui** introduces the 2nd premiss, as below § 41, and often, see Index.

**id quo illa conficiuntur**: Sch. (*Opusc.* III 328 and 370) would insert *a* before *quo*, to suit the *ab homine*, but the indefinite *id* obscures the idea of agency, see § 4 *numen quo regantur*, § 30 *natura contineri*, 124 *natura congregari*.

[**quid potius dixeris**: 'what could one say it was rather than a god?' For the Perf. Subj. with words like *potius* see *Gr.* § 1540, and for the indefinite second person § 1544. R.]

**etenim**: from the criticism in III 26 *idemque si di non sint* &c., it would appear that C. is here giving a new argument, viz. 'if there are no gods, man must be the highest of existing things, but that is absurd, therefore there must be gods'. If we take it thus, *etenim* must have the force of 'again' 'further', see Madv. *Fin.* I 3 *particula 'etenim' utimur non tam cum proxima confirmamus, quam cum in universa argumentatione progredimur, ut saepe idem sit ac 'porro'*. He cites *Tusc.* III 20, *Div.* II 89, 142, *N. D.* II 77, to which Forchhammer (*Nord. Tidskr.* 1880 p. 41) adds II 42, III 30, 31. On the other hand this second argument is capable of being employed to back up the conclusion of the former (viz. that the universe indicates the existence of a superhuman power); for this in itself is not conclusive as to a divine existence, until it is further shown that whatever is superhuman must be divine. It is possible therefore that C. takes *etenim* in its usual sense. For the arg. Lescal. quotes from Augustine, *mens humana de visibilibus judicans potest agnoscere omnibus visibilibus se ipsam esse meliorem; quae tamen, cum etiam se propter defectum...fatetur esse mutabilem, invenit supra se incommutabilem veritatem.*

**esse hominem—arrogantiae est**: the regular constr. would have been *esse hominem mirandum est*, as in § 93 *hic ego non mirer esse quemquam qui*, but this is confused with another constr. *hominem putare est arrogantiae*. For the thought compare *Leg.* II 16 *quid est verius quam neminem esse oportere tam stulte arrogantem, ut in se rationem et mentem putet inesse, in caelo mundoque non putet?...Cumque omnia, quae rationem habent, praestent iis quae sint rationis expertia, nefasque sit dicere ullam rem praestare naturae omnium rerum, rationem inesse in ea confitendum est.* We must remember this side of Stoic teaching when we come to the extravagances of § 153.

§ 17. **an...non possis adduci ut (domum)...mustelis aedificatam putes: tantum ornatum...si tuum...putes nonne desipere videare?** I omit *ergo* after *tantum* with Heind. Forchhammer (p. 43) and Madv.

The last (in his *Emend. in Cic. lib. phil.* I pp. 19—53) gives many exx. of this co-ordination of contrasted clauses. The regular form would have been *domum non mustelis aedificatam putas: tantum ornatum tuum putabis?* as below § 18 *an cetera mundus habebit: hoc unum non habebit?* § 97 *an, cum moveri sphaeram videmus, non dubitamus quin illa opera sint rationis: cum autem caelum moveri videamus, dubitamus quin ea ratione fiant? Leg.* I 46 *an ea non aliter: honesta et turpia non ad naturam referri necesse erit? Fin.* I 5 *an 'utinam ne in nemore' legimus: quae autem a Platone disputata sunt, haec explicari non placebit Latine? Fin.* I 13 *an 'partus ancillae sitne in fructu habendus' dissseretur: haec quae vitam omnem continent neglegentur? Fin.* II 33 *ergo in bestiis erunt simulacra virtutum: in ipsis hominibus virtus nulla erit? Fin.* II 88 *an dolor longissimus quisque miserrimus: voluptatem non optabiliorem diuturnitas facit? Fin.* V 91 *an hoc usquequaque: aliter in vita? Cat.* I 3 *an vero Gracchum privatus interfecit: Catilinam nos consules perferemus? Sulla* 32 *an vero clarissimum virum nemo reprehendit qui filium vita privavit: tu rem publicam reprehendis quae domesticos hostes necavit? Orat.* I 250 *an vero, si de re ipsa controversia est, contortas res perdiscimus: si leges... cognoscenda sunt, veremur ne ea queamus cognoscere? Planc.* 41 *an vero clarissimi cives nomen editicii judicis non tulerunt: nos ab accusatore constitutos judices feremus?* where see Holden; also *Tusc.* V 90, *Philipp.* XIV 12, Liv. V 52 *an ex hostium urbibus Romam transferri sacra religiosum fuit: hinc sine piaculo in hostium urbem Veios transferemus?* The regular form is sometimes broken by anacoluthon, as in *Phil.* I 17 *an si cui quid ille promisit, id erit fixum,* which should naturally have been followed by *leges ejus ratae non erunt?* but this is made into an independent sentence: in *Tusc.* V 73 *an Epicuro dicere licebit,* which should have been followed by *Stoicis non dicendum est?* but this appears as a new sentence § 75. The foregoing exx. show that the former of the contrasted clauses should contain an undoubted fact, apparently inconsistent with the supposition contained in the latter clause. Here the undoubted fact is, 'you could not be induced to believe that a fine house was built for weasels'; the opposed supposition is 'will you believe that this beautiful world was made only for men'? Of course, if the reading of the MSS is kept, and the former clause treated as an independent sentence, *non* before *possis* would be out of place. We find the same comparison of the universe to a household in an interesting passage of Arist. *Metaph.* XI 10 p. 1075 a.

**mustelis**: see n. on *faelis* I 101. The weasel was employed like our cat, cf. Phaedr. I 22 of the weasel supplicating for life *quaeso parcas mihi quae tibi molestis muribus purgo domum;* IV 1 (the fable of the mice and old weasel); Plaut. *Stich.* III 2 *auspicio hodie optimo exii foras: mustela murem abstulit praeter pedes;* Ov. *Met.* IX 233 Galanthis is changed into a weasel, *nostrasque domos ut et ante frequentat;* Plin. *N. H.* XXIX 16 there are two kinds of *mustela,* one larger and wild, the other *quae in domibus nostris oberrat et catulos suos, ut auctor est Cicero, quotidie transfert, mu-*

*tatque sedem, serpentes persequitur;* Anton. Max. *Serm.* LXVII in a house where there is much provision there are many mice and weasels (*μῦς καὶ γαλᾶς*); Perizon. on Aelian *V. H.* XIV 4. Rolleston (*Journ. of Anatomy and Physiology* Vol. II p. 47 foll.) shows that this weasel was probably the Mustela Foina, our 'white-breasted marten', and cites Palladius IV 9 4, as proving that both it and the cat were domesticated in Italy in the 4th century A.D. See Houghton *Nat. Hist. of the Ancients* pp. 40—49. We find the same comparison below § 157, but here we have an additional point in the invisibility of the master.

**ornatum mundi**: the phrase is probably suggested by the Gr. *κόσμος*, see below § 94, 115, 118, 127, *Acad.* II 119.

A f. *Man inhabits the lowest region of the universe; the pure ether of the higher regions is fitted for nobler inhabitants.* [The argument is incompletely stated by C.] § 17.

**an ne hoc quidem intellegimus** gives the reason why it is folly to think that the earth-born creature man can be the highest, 'or are we such fools as not to know that the things above are better?' See Arist. *Cael.* II 5 *θειότερος ὁ ἄνω τόπος τοῦ κάτω*, *de Mundo* VI 31 *συνεπιμαρτυρεῖ ὁ βίος ἅπας τὴν ἄνω χώραν ἀποδοὺς θεῷ· καὶ γὰρ πάντες οἱ ἄνθρωποι ἀνατείνομεν τὰς χεῖρας εἰς τὸν οὐρανὸν εὐχὰς ποιούμενοι. καθ' ὃν λόγον οὐ κακῶς κἀκεῖνο ἀναπεφώνηται—Ζεὺς δ' ἔλαχ' οὐρανὸν εὐρὺν ἐν αἰθέρι καὶ νεφέλῃσιν—διὸ καὶ τῶν αἰσθητῶν τὰ τιμιώτατα τὸν αὐτὸν ἐπέχει τόπον, ἄστρα τε καὶ ἥλιος καὶ σελήνη*, *R. P.* VI 17 *infra autem (lunam) nihil est nisi mortale et caducum praeter animos munere deorum hominum generi datos; supra lunam sunt aeterna omnia; nam ea quae est media et nona, Tellus, neque movetur et infima est; Tusc.* I 43 (when the soul on its departure from the body has mounted above this lower air) *naturamque sui similem contigit...finem altius se efferendi facit;* Plin. *N. H.* II 21 *Posidonius non minus quadraginta stadiorum a terra altitudinem esse in qua nubila et venti nubesque proveniant; inde purum liquidumque et imperturbatae lucis aerem.*

**ut ob eam—collocati sint**: the main purpose of this awkward sentence is to introduce the conclusion *ut hebetius sit genus humanum:* **eam ipsam causam** refers to *crassissimus* and is repeated again in *quod in terra—sint;* the parenthetical statement of fact in the relative clause *quod ...videmus* is explained by *hebetiora ut sint*, and afterwards taken up by *hoc idem*. **contingere**: not simply 'befalls', but 'is a quality of' like *συμβαίνει*. **pleniorem**: 'denser' 'more stuffy'. No other instance of this meaning is cited. On the effect of climate see below § 42, *de Fato* 7 *inter locorum naturas quantum intersit videmus: alios esse salubres, alios pestilentes, in aliis esse pituitosos, et quasi redundantes, in aliis exsiccatos atque aridos.... Athenis tenue caelum, ex quo acutiores putantur Attici, crassum Thebis, itaque pingues Thebani et valentes, Div.* I 79, Hor. *Ep.* II 1 244; Juvenal X 50 cites Democritus as an instance on the contrary side.

The originator of the theory is probably Heraclitus (fr. 76 Byw. *οὗ γῆ ξηρὴ, ψυχὴ σοφωτάτη καὶ ἀρίστη*), who was followed by Hippocrates XXVIII 31 foll. It is interesting, as confirmatory of the Posidonian authorship of the treatise from which C. is borrowing, to find Strabo attacking Posidonius for maintaining the influence of climate on character (II 3 p. 102 foll.). He seems to have spoken of the distribution of the different parts of the earth and the effect on the character of the people inhabiting them, as proofs of divine Providence, in opposition to which Strabo says, 'such arrangements *οὐκ ἐκ προνοίας γίνονται, καθάπερ οὐδὲ αἱ κατὰ τὰ ἔθνη διαφοραί ...ἀλλὰ κατὰ ἐπίπτωσιν καὶ συντυχίαν ... οὐ γὰρ φύσει Ἀθηναῖοι μὲν φιλόλογοι, Λακεδαιμόνιοι δὲ οὐ καὶ οἱ ἐγγυτέρω Θηβαῖοι, ἀλλὰ μᾶλλον ἔθει· οὕτως οὐδὲ Βαβυλώνιοι φιλόσοφοι φύσει καὶ Αἰγύπτιοι, ἀλλ' ἀσκήσει καὶ ἔθει... ὁ δὲ* (Pos.) *συγχεῖ πάντα*'. Similarly Galen (*Hipp. Plat.* p. 464 K) 'Posidonius maintains *οὐ σμικρῷ τινι διενηνοχέναι τοῖς ἤθεσι τοὺς ἀνθρώπους εἰς δειλίαν καὶ τόλμαν, ἤτοι φιλήδονόν τε καὶ φιλόπονον, ὡς τῶν παθητικῶν κινήσεων τῆς ψυχῆς ἑπομένων ἀεὶ τῇ διαθέσει τοῦ σώματος, ἣν ἐκ τῆς κατὰ τὸ περιέχον κράσεως οὐ κατ' ὀλίγον ἀλλοιοῦσθαι*'. **crassissima regione**: C. omits to draw the conclusion, as to the existence of beings superior to man in the higher element, which we find below § 42 and in Sext. Emp. IX 86, *εἴτε ἐν γῇ καὶ θαλάσσῃ πολλῆς οὔσης παχυμερείας* (cf. *pleniorem naturam*) *ποικίλα συνίσταται ζῷα ψυχικῆς τε καὶ αἰσθητικῆς μετέχοντα δυνάμεως, πολλῷ πιθανώτερόν ἐστιν ἐν τῷ ἀέρι, πολὺ τὸ καθαρὸν. καὶ εἰλικρινὲς ἔχοντι παρὰ τὴν γῆν καὶ τὸ ὕδωρ, ἔμψυχά τινα καὶ νοερὰ συνίστασθαι ζῷα.* Omitting this, he hastens on at once to another argument, which follows it in Sextus; see n. on *et tamen* below. **collocati sint**: Zumpt § 366 says that, while we never find C. using a plural verb after a singular noun of multitude, yet he sometimes employs a plural of the same subject in a following clause, as here and *p. Arch.* 12, *Marcell.* 11, *Quint.* 23, *Fin.* III 70, cf. Madv. § 215 a.

A g. *Still even man shares in the gift of reason: this, like the grosser elements of which his body is composed, must be derived from the universe, as its source.* § 18.

§ 18. **et tamen**: 'and yet, mean as he is, man has a trace of something higher'. The same argument is referred to in the same connexion by Sext. l. c., (If the air has living beings belonging to it, so, we may infer, must the ether have beings, of a yet higher grade) *ὅθεν καὶ ἄνθρωποι νοερὰς μετέχουσι δυνάμεως κἀκεῖθεν αὐτὴν σπάσαντες*, but it is not fully stated till § 94, where the same quotation from Xenophon occurs.

**esse aliquam mentem**: Brieger (p. 17) rightly objects to this reading, that the following *et eam quidem* shows that the subject, of which it introduces the attribute, must be already clearly before the mind, but *aliquam* leaves it indefinite. There is plainly allusion to a mind which is distinct from that of man and is stated to be keener than it. Hence Sch. and

Brieger propose to read *aliam quam;* the latter comparing § 115 where *aliqua* is read for *alia quae* in some MSS, and suggesting as alternatives *mundi mentem* (as in § 58), which I prefer, or *in mundo mentem* (as in III 27 *quaerit apud Xenophontem Socrates, unde animum arripuerimus, si nullus fuerit in mundo*).

**et eam quidem**: *et is*, *et is quidem*, and *et quidem* are used to emphasize some quality or fact in reference to what precedes, cf. § 29 *natura est quae tueatur, et ea quidem non sine sensu*, § 30 *et acriora quidem*, see Index, and (for a different use) I 79 n.

**unde arripuit**: quoted by Lact. *de Ira* 10. The words of Xenophon (*Mem.* I 4 § 8), quoted in the same connexion by Sext. Emp. IX 92 foll., are σὺ δὲ σαυτὸν δοκεῖς τι φρόνιμον ἔχειν ... ἄλλοθι δὲ οὐδαμοῦ οὐδὲν οἴει φρόνιμον εἶναι; καὶ ταῦτα εἰδὼς ὅτι γῆς τε μικρὸν μέρος ἐν τῷ σώματι πολλῆς οὔσης ἔχεις, καὶ ὑγροῦ βραχὺ πολλοῦ ὄντος, καὶ τῶν ἄλλων δήπου μεγάλων ὄντων ἑκάστου μικρὸν μέρος λαβόντι τὸ σῶμα συνήρμοσταί σοι· νοῦν δὲ μόνον ἄρα οὐδαμοῦ ὄντα σὲ εὐτυχῶς πως (Sextus has πόθεν) δοκεῖς συναρπάσαι (and that all the host of heaven are not guided by reason in their movements); cf. *Cyrop.* VIII 7 § 20 διαλυομένου ἀνθρώπου δῆλά ἐστιν ἕκαστα ἀπιόντα πρὸς τὸ ὁμόφυλον πλὴν τῆς ψυχῆς· αὕτη δὲ μόνη οὔτε παροῦσα οὔτε ἀπιοῦσα ὁρᾶται. Plato also attributes the same thought to Socrates (*Phileb.* § 54), τὸ παρ' ἡμῖν σῶμα ἆρ' οὐ ψυχὴν φήσομεν ἔχειν . . . πόθεν, ὦ φίλε, λαβόν, εἴπερ μὴ τό γε τοῦ παντὸς σῶμα ἔμψυχον ὂν ἐτύγχανε, ταὐτά γε ἔχον τούτῳ καὶ ἔτι πάντῃ καλλίονα; foll.; so below § 79 *unde (mens fides virtus) in terram nisi a superis defluere potuerunt? Tusc.* I 60 *terrane tibi, hoc nebuloso et caliginoso caelo, aut sata aut concreta videtur tanta vis memoriae?* § 62 *ex hacne tibi terrena mortalique natura et caduca concreta ea (excogitatio) videtur?* For the criticism see III 27.

**quin**: the previous argument is further supported by analogy; we might assume *a priori* that the soul must have come to us from some other quarter, but we have additional reason for believing this, when we remember that the remaining elements of our nature may all be traced to an external source. **fusus in**: 'diffused throughout', cf. § 28 *calidum illud ita in omni fusum esse natura*, 141 *tactus toto corpore aequabiliter fusus est*, I 39 *animi fusionem universam.*

**terrenam ipsam viscerum soliditatem**: 'even the earthy firmness of the flesh'; *visc.* like σπλάγχνα includes all that is covered by the skin except the bones; hence the public distribution of meat was called *visceratio*, so *visceribus vesci* § 159, cf. *Tusc.* II 20 and 34; *ipsam* as the least probable case, least resembling the element from which it was derived, so of the air § 26 *ipse vero aer.*

**animam illam**: so Brieger for the *animum* of MSS, *animus* being never used of breath or air; while *anima* is often used for the element by Lucretius and Cic., cf. *Acad.* II 124, *Tusc.* I 19 and especially *Tim.* c. 14 cited on § 32 *mundi ardor.*

**spirabilem**: 'inbreathed', 'the air we breathe'; so § 138 *spiritu in pul-*

*mones anima ducitur;* cf. § 91 *terra circumfusa est hac animali spirabilique natura cui nomen est aer, Tusc.* I 40, 70, Hippocr. ap. Galen (*Hipp. et Plat.* p. 677) τὸ ἀερῶδες στοιχεῖον ἐν τοῖς τῶν ζῴων σώμασιν ὁρᾶται, ἐν ταῖς ἀναπνοαῖς καὶ κατὰ τὰς σφυγμούς (pulsations). On the 'microcosm' compare Epictet. *Diss.* III 13 (on death thou must depart) εἰς οὐδὲν δεινόν, ἀλλ' ὅθεν ἐγένου, εἰς τὰ φίλα καὶ συγγενῆ, εἰς τὰ στοιχεῖα· ὅσον ἦν ἐν σοὶ πυρὸς εἰς πῦρ ἄπεισιν, ὅσον ἦν γηδίου εἰς γήδιον, ὅσον πνευματίου εἰς πνευμάτιον, ὅσον ὑδατίου εἰς ὑδάτιον, M. Ant. IV 4 ὥσπερ γὰρ τὸ γεῶδές μοι ἀπό τινος γῆς ἀπομεμέρισται, καὶ τὸ ὑγρὸν ἀφ' ἑτέρου στοιχείου, καὶ τὸ θερμὸν καὶ πυρῶδες ἔκ τινος ἰδίας πηγῆς ...οὕτω δὴ καὶ τὸ νοερὸν ἥκει ποθέν, Philo *Mund. Op.* § 51 πᾶς ἄνθρωπος κατὰ μὲν τὴν διάνοιαν ᾠκείωται θείῳ λόγῳ, τῆς μακαρίας φύσεως... ἀπόσπασμα γεγονώς, κατὰ δὲ τὴν τοῦ σώματος κατασκευὴν ἅπαντι τῷ κόσμῳ· συγκέκριται γὰρ ἐκ τῶν αὐτῶν, γῆς καὶ ὕδατος καὶ ἀέρος καὶ πυρός, ἑκάστου τῶν στοιχείων εἰσενεγκόντος τὸ ἐπιβάλλον μέρος. The Stoics borrowed this theory from Plato *Tim.* 42, where the Demiurgus distributes the immortal souls to the created gods to combine with particles derived from the four elements: Galen (*Hipp. et Plat.* p. 665) says that Plato himself followed Hippocrates, who built on this foundation his doctrine of humours, so celebrated in the after history of medicine; thus yellow bile corresponds to fire, black bile to earth, phlegm to water, blood to air, giving rise to the four temperaments bilious, melancholic, phlegmatic, sanguine (Galen l. c. 672), cf. Vitruv. I 4 § 5 *ex principiis quae Graeci* στοιχεῖα *appellant, ut omnia corpora sunt composita, id est ex calore et umore et terreno et aere, ita his mixtionibus naturali temperatura figurantur omnium animalium in mundo generatim qualitates.*

**si quis quaerat—apparet**: for this form of the hypothetical sentence, cf. § 76 *qui concedant, iis fatendum est*, I 122 *quod ni ita sit, quid veneramur deos* (unless we should there read *est* for *sit*), and Roby § 1574.

Ch. VII. **unde sustulimus**: the answer given below is that we received it from the *aether* also called *mundi fervor* (§ 30) or *ardor caelestis* or *caelum* (41), which is a species of fire corresponding to the vital heat (41) but far purer than that which is to be found in any earthly creature (30), and in which resides the ἡγεμονικόν of the universe, *non sine sensu et ratione* (29, 31), which holds all things together and is indeed God (30), and of which the stars are made and are therefore divine (39—42). The Stoics distinguished ether, πῦρ τεχνικόν or πνεῦμα, as they called it, from ordinary fire, πῦρ ἄτεχνον, not only as purer, but as moving in a circle in its own sphere, while the other, being out of its sphere, moved vertically up to regain it; but they did not go so far as to make it a distinct fifth element (quintessence) like Aristotle (*Acad.* I 39). We find the same answer *R. P.* VI 15 *animus datur ex illis sempiternis ignibus quae sidera et stellas vocatis*, but elsewhere C. speaks more doubtfully as in *Tusc.* I 40, 43, 65 *si deus aut anima aut ignis est, idem est animus hominis; nam, ut illa natura caelestis et terra vacat et umore, sic utriusque harum rerum humanus animus est expers. Sin autem est quinta quaedam natura, haec et deorum est et animorum:* at times

he follows Socrates and Plato and makes the soul a pure immaterial substance, thus after speaking of the origin of the body (*Tusc.* I 56) *sanguinem bilem pituitam ossa nervos venas, omnem denique membrorum et totius corporis figuram videor posse dicere unde concreta et quo modo facta sint:* as to the soul *animorum nulla in terris origo inveniri potest*, it has nothing of earth or water, nothing even of air or fire; *his enim in naturis nihil inest quod vim memoriae mentis cogitationis habeat... quae sola divina sunt. Nec invenietur umquam unde ad hominem venire possint, nisi a deo. ...Nec vero deus ipse alio modo intelligi potest nisi mens soluta quaedam et libera.* We may say indeed that C.'s answer to *unde* is always *a deo*, but at times he takes the Stoic materialist view of the divine nature, at other times the Platonic spiritualist view.

**an cetera mundus habebit, hoc unum non habebit:** on the coordination of contrasted clauses see above § 17.

A h. *The universe being perfect must contain that which is essential to perfection, viz. mind.* [Conclusion omitted 'and this mind is God'.] § 18.

**ne cogitari quidem quicquam melius potest:** on Stoic optimism cf. § 87 n.

A i. *The sympathy which unites all the parts of the universe shows that they are pervaded by one divine spirit* §§ 19, 20.

§ 19. **consentiens conspirans continuata cognatio:** cf. *N. D.* III 28, *Div.* II 142 *quae est continuatio conjunctioque naturae, quam, ut dixi, vocant συμπάθειαν, ejus modi, ut thesaurus ex ovo intellegi debeat?* ib. II 33 *cum rerum natura quam cognationem habent (portenta)? quae ut uno consensu juncta sit et continens... quid habere mundus potest cum thesauri inventione conjunctum?* ib. 34 *qua ex conjunctione naturae et quasi concentu atque consensu, quam συμπάθειαν Graeci appellant, convenire potest meus quaesticulus cum caelo terra rerumque natura?* it is also called *naturae* or *rerum contagio* (*de Fato* §§ 5, 7, *Div.* II 33). We find the Greek equivalents in Diog. L. VII 140 ἐν τῷ κόσμῳ μηδὲν εἶναι κενὸν, ἀλλ' ἡνῶσθαι αὐτόν· τοῦτο γὰρ ἀναγκάζειν τὴν τῶν οὐρανίων πρὸς τὰ ἐπίγεια σύμπνοιαν καὶ συντονίαν, Alex. Aphr. *de Mixt.* 142 (Zeller p. 119) ἡνῶσθαι μὲν ὑποτίθεται Χρύσιππος τὴν σύμπασαν οὐσίαν πνεύματός τινος διὰ πάσης αὐτῆς διήκοντος, ὑφ' οὗ συνάγεταί τε καὶ συμμένει καὶ συμπαθές ἐστιν αὐτῷ τὸ πᾶν, Philo *Mund. Op.* 40 ἐκ τῶν οὐρανίων τὰ ἐπίγεια ἤρτηται κατά τινα φυσικὴν συμπάθειαν, Plut. *de Fato* p. 574 E (the ground of necessitarianism is) τὸ φύσει διοικεῖσθαι τὸν κόσμον, σύμπνουν καὶ συμπαθῆ αὐτὸν αὑτῷ ὄντα, Cleomedes I 1 § 4 εἰ γὰρ μὴ δι' ὅλου συμφυὴς ὑπῆρχεν ἡ τῶν ὅλων οὐσία, οὔτ' ἂν ὑπὸ φύσεως οἷόν τ' ἦν συνέχεσθαι καὶ διοικεῖσθαι τὸν κόσμον, οὔτε, μὴ ὑφ' ἑνὸς τόπου συνεχομένου αὐτοῦ καὶ τοῦ πνεύματος μὴ δι' ὅλου ὄντος συμφυοῦς, οἷόν τ' ἂν ἦν ἡμῖν ὁρᾶν ἢ ἀκούειν foll. By such language the Stoics meant to express not merely the universality

and invariableness of law throughout the whole realm of nature, as of gravitation alike on earth and in the heavens, but the organic unity of the world, as an animate body, and the correlation and mutual interdependence of all its parts, see Diog. VII 143, Sext. Emp. IX 78. The word συμπάθεια is used by Epicurus to denote the common feeling of the members of the human body. On the alliteration with *c* cf. below § 34.

**continuata** = συνεχής. See Heinze p. 94, Osann on Cornutus pp. 231, 413. On the recurrence of words compounded with the same preposition Heind. (on § 81) cites I 65 *effingis atque efficis*, II 130 *obrutam oppletamque—oblimatos*, 158 *confectis atque contextis* and many others.

**possetne uno tempore**: the protasis is given in the following sentence, where the apodosis is repeated in a categorical form. **uno temp.** usually means 'at one and the same time'; here Heind. takes it to mean 'at one time' as opposed to *vicissim*, which he makes equal to *alio tempore*, cf. Kraner on Caesar *B.C.* III 15. I am inclined to think that the ordinary sense gives a better instance of the *continuata cognatio*, and that we need not trouble ourselves as to how far the statement accords with the facts as to our antipodes.

**florere—horrere**: so Epict. *Diss.* I 14 'Do you not think that all things are knit together into one whole and that there is a sympathy between things on earth and things in heaven? If it were not so, how could all the plants put forth leaves and flowers and fruit, and again shed their fruit and their leaves, and retire into themselves and rest at the bidding of God?' Pliny *N.H.* II 39 *quis enim aestates et hiemes, quaeque in temporibus annua vice intelleguntur, siderum motu fieri dubitet?* besides this, each star has its peculiar virtue, e.g. dogs run mad under the dog-star—*quin partibus quoque signorum quorumdam sua vis inest*, as our own experience tells us in regard to the winter solstice and the autumnal equinox. The olive and some other trees turn their leaves at the summer solstice, dried mint flowers at the winter solstice. See also a list of phenomena *caelestibus nexa causis* ib. c. 80. On the other hand Lucr. (II 515) adduces the regularity of the seasons as a proof of the limited variety of atoms.

**ipsis se immutantibus—cognosci**: the varying distance of the sun is perceived by what appear to be spontaneous changes in the objects about us, e.g. the growth of plants and such changes as are described by Pliny l. c.

**solstitiis brumisque**: Abl. of Point of Time. In prae-Augustan writers *solst.* is used only of the summer solstice. **solis accessus discessusque**: cf. § 49.

**aestus maritimi**: see below § 132, III 24, *Div.* II 33 *ut enim jam sit aliqua in natura rerum contagio, quam esse concedo, multa enim Stoici colligunt*, (then after exx. like those cited above from Plin. *N.H.* II 39) *quid de fretis aut de marinis aestibus plura dicam? quorum accessus et recessus lunae motu gubernantur. Sescenta licet ejus modi proferri, ut distantium*

*rerum cognatio naturalis appareat;* Seneca *Prov.* I (*undae*) *ad horam ac diem subeunt, ampliores minoresque prout illas lunare sidus elicuit, ad cujus arbitrium Oceanus exundat,* cf. *N. Q.* III 28, Plin. *N. H.* II 97; Caesar notices the fact (*B. G.* IV 29) *eadem nocte accidit ut esset luna plena, qui dies maritimos aestus maximos in Oceano efficere consuevit, nostrisque id erat incognitum;* pseudo-Aristotle *de Mundo* 4 § 35 *πολλαί τε ἀμπώτεις λέγονται καὶ κυμάτων ἄρσεις συμπεριοδεύειν ἀεὶ τῇ σελήνῃ κατά τινας ὡρισμένους καίρους. ὡς δὲ τὸ πᾶν εἰπεῖν, τῶν στοιχείων ἐγκεκραμένων ἀλλήλοις ἐν ἀέρι τε καὶ γῇ καὶ θαλάσσῃ κατὰ τὸ εἰκὸς αἱ τῶν παθῶν ὁμοιότητες συνίστανται, τοῖς μὲν ἐπὶ μέρους φθορὰς καὶ γενέσεις φέρουσαι, τὸ δὲ σύμπαν ἀνώλεθρόν τε καὶ ἀγένητον φυλάττουσαι.* We have a short sketch of the views entertained on the subject of tides in the *Plac. Phil.* III 17 (*πῶς ἀμπώτιδες γίνονται καὶ πλημμῦραι*): Aristotle and Heraclitus say the tides are produced by the sun, which is the exciting cause of winds; these when they rise push the sea before them and cause it to swell, when they sink the sea falls back into its place. Pytheas (the famous traveller of Massilia B.C. 300, see Bunbury *Anc. Geog.* I p. 600) says the tide rises when the moon is waxing and sinks as it wanes; Plato, that there is a kind of natural circulation of the waters of the sea (the reference is to the description of the rivers of Tartarus, *Phaedo* p. 111); Timaeus, that the tides of the Ocean are caused by the violent torrents of Gaul; Seleucus (cf. Plut. *Plac. Quaest.* p. 1006) that they proceed from the contrary currents of air generated by the rotation of the earth and the moon. Bunbury writes as follows (II 97) 'Posidonius (C.'s chief authority in this book) appears to have been the first Greek writer that arrived at clear ideas about the tides. For this he was indebted to his journey to Spain, where he spent some time at Gades, and from his own observation, coupled with the information he received from the natives, acquired a distinct knowledge not only of the diurnal recurrence of the tides, but of their monthly cycles of variation, which he correctly ascribed to the influence of the moon, and its different positions with regard to the sun; so that the highest tides, as he observed, always coincided with the full moon and the lowest with the half-moon or intermediate quarter', cf. Strabo III 3 p. 229, 5 p. 261—264, where he tells us that Aristotle had referred the tides to the peculiar nature of the Spanish coast, but that Pos. rightly maintained *τὴν τοῦ Ὠκεανοῦ κίνησιν ὑπέχειν ἀστεροειδῆ περίοδον, τὴν μὲν ἡμερήσιον ἀποδιδοῦσαν, τὴν δὲ μηνιαῖαν, τὴν δ' ἐνιαυσιαῖαν, συμπαθῶς τῇ σελήνῃ.* Strabo (I 1 p. 9) thinks Homer referred to this in his *ἀψόρρoος Ὠκεανός* and the description of Charybdis. Though the true theory of tides had thus been established early in the first century B.C. yet we find later writers still doubting as to their cause, e.g. Lucan I 412, as to whether they are due to the wind or to the moon, Pomp. Mela (time of Caligula) III 1 as to whether they may not be due to the respiration of the mundane animal. The early Stoics, in this agreeing with the Epicureans, thought the subject undeserving of the curiosity of a wise man. See Diog. L. VII 123 *τὸν*

*σοφὸν οὐδὲν θαυμάζειν τῶν δοκούντων παραδόξων, οἷον Χαρώνεια* (*ostia Ditis*) *καὶ ἀμπώτιδας.*

**fretorumque angustiae:** Varro *L. L.* VII 22 *dictum fretum a similitudine ferventis aquae, quod in fretum saepe concurrat aestus atque effervescat*, cf. below III 24 on the currents of the Euripus and other straits.

**ortu aut obitu:** 'shortly after the appearance of the moon above the horizon the tide-wave begins to show itself and increases till she reaches her greatest elevation (*μέχρι μεσουρανήσεως*); after which the ebb commences and continues till the moon sets, when the flow again begins and increases till the moon reaches her greatest elevation on the opposite side of the heaven' (*ἕως τοῦ ὑπὸ γῆν μεσουρανήματος*), Posidonius ap. Str. III 5 § 8. Cic. here only notices this diurnal variation.

**cursus dispares:** Lact. II 5 *stellarum inerrantium vel vagarum dispares cursus*, cf. below § 49 *cum duo sint genera stellarum*, one of which moves invariably from east to west, while the other makes two distinct revolutions, we may see in both the same law of circular movement: all make the daily revolution, some, the planets, have a further movement of their own; § 51 *quarum ex disparibus motionibus magnum annum nominaverunt.*

**concinentibus partibus:** § 119 (*stellarum*) *tantus est concentus ut...* with allusion to the harmony of the spheres, on which see *R. P.* VI 18, also *Oeconom.* 6.

**continuato spiritu:** Celsus (ap. Orig. VI 71) charged the Christians with borrowing from the Stoics their doctrine of an all-pervading Spirit *τῶν Στωϊκῶν φασκόντων ὅτι ὁ θεὸς πνεῦμά ἐστι διὰ πάντων διεληλυθὸς καὶ πάντ' ἐν ἑαυτῷ περιέχον.* But the Stoic *πνεῦμα*, as Origen points out, is material: it is the warm air or ether which penetrates and gives life to all things and connects them together in one organic whole; just as man's body is unified by the living soul, which is also material, *πνεῦμα σύμφυτον ἡμῖν συνεχὲς παντὶ τῷ σώματι διῆκον* (Chrys. ap. Galen *Hippoc. et Plat.* p. 257). Posidonius defined God as *πνεῦμα νοερὸν καὶ πυρῶδες, οὐκ ἔχον μὲν μορφήν, μεταβάλλον δὲ εἰς ὃ βούλεται καὶ συνεξομοιούμενον πᾶσιν* (Stob. *Ecl.* I 2 p. 58). The term *πνεῦμα* is Aristotelian, it is the material basis of soul (Zeller III p. 483[3] foll. and note on *N. D.* I 33 *caeli ardorem*). See the passage cited from Alex. Aphr. under *consentiens* above.

**continerentur:** *quasi quodam vinculo*, as we read in § 115.

§ 20. **Academicorum calumniam:** cf. I 13 n. and *Acad.* II 14.

**uberius et fusius:** 'a more exuberant and flowing style'; this was not usual with the Stoics, of whom C. says (*Orat.* II 159) *brevius angustiusque genus sermonis affert, non liquidum, non fusum ac profluens, sed exile aridum concisum ac minutum*, and *Leg.* I 36 *quae fuse olim disputabantur ac libere, ea nunc articulatim distincta dicuntur.* The speeches of Antony and Brutus in Shakspeare may be taken as illustrating the two styles. We are told that Posidonius, whom C. here follows, was distinguished from others of his school by a natural eloquence (Strabo III 2 § 9).

**ut Zeno solebat:** his love of brevity is shown by the story told Diog. L. VII 20 *εἰπόντος δέ τινος ὅτι μικρὰ αὐτῷ δοκεῖ τὰ λογάρια τῶν φιλοσόφων, λέγεις, εἶπε, τἀληθῆ, δεῖ μέντοι καὶ τὰς συλλαβὰς βραχείας εἶναι, εἰ δυνατόν.*

**concluduntur:** see n. on I 89 *argumentis sententiam conclusisti.*

**profluens:** *aqua profl.* is the regular term for running water, see *Off.* I. 52. [Ambros. *Off.* I 16. J. E. B. M.]

**conclusa:** Jordan (*Hermes* 1880 p. 535) quotes from an inscription *Esquiliis ab aqua conclusa,* showing that the phrase was in regular use for a pond. So we often have *locus conclusus,* and Caesar *B. G.* III 9 opposes *mare conclusum* to *apertissimus Oceanus.*

**orationis flumine convicia diluuntur:** the imitation by Minucius c. 16 *conviciorum amarissimam labem verborum veracium flumine diluere* is sufficient to prove the correctness of the emendation *convicia* against Zumpt on the *Orat. pro Murena* § 13; compare also *Fam.* XII 25, Plin. *Ep.* VI 12 cited by Heind.; and for the general sense *Fin.* II 3 *cum fertur quasi torrens oratio, quamvis multa cujusque modi rapiat, nihil tamen teneas...nusquam coerceas.*

**angustia:** the Sing. is also found in Sall. fr. IV 20, Plin. *N.H.* XIV 61, Tac. *Ann.* IV 72, *Dial.* 8, Apul. *Met.* X 26. [Hieron. *Ep.* 133 § 11 *angustia epistularis.* J. E. B. M.]

**premebat:** 'compressed', so *pressus* 'concise' in *Orat.* II 96, see n. on § 149 below.

A k. *Zeno's argument for the divinity of the universe [and therefore (indirectly) for the divine existence, since the universe exists]. (1) What has reason is better than what has not reason, therefore the universe, the best of things, has reason: similarly it may be proved to be wise, blessed, eternal, and therefore God.* §§ 20, 21.

This indirect argument is constantly used in Sext. Emp. see IX 85 *ἀλλ' εἰ ἀρίστη ἐστὶ φύσις ἡ τὸν κόσμον διοικοῦσα, νοερά τε ἔσται καὶ σπουδαία καὶ ἀθάνατος· τοιαύτη δὲ τυγχάνουσα θεός ἐστιν· εἰσὶν ἄρα θεοί.* ib. § 118 *ἐπεὶ ἡ τοῦ κόσμου φύσις ἐστὶν αἰτία τῆς τοῦ ὅλου κόσμου διακοσμήσεως, εἴη ἂν αἰτία καὶ τῶν μερῶν· εἰ δὲ τοῦτο, κρατίστη ἐστίν· εἰ δὲ κρατίστη ἐστί, λογική τέ ἐστι καὶ νοερά· προσέτι δὲ ἀΐδιος ἂν εἴη· ἡ δὲ τοιαύτη φύσις ἡ αὐτή ἐστι θεῷ· ἔστι τοίνυν θεός.* So §§ 120, 122.

Ch. VIII § 21. **quod ratione utitur:** the same argument is given *Leg.* II 16 *cum omnia quae rationem habent praestent iis quae sint rationis expertia, nefasque sit dicere ullam rem praestare naturae omnium rerum, rationem inesse in ea confitendum est;* and Sext. Emp. IX 104 *πάλιν ὁ Ζήνων φησίν, εἰ τὸ λογικὸν τοῦ μὴ λογικοῦ κρεῖττόν ἐστιν, οὐδὲν δέ γε κόσμου κρεῖττόν ἐστι, λογικὸν ἄρα ὁ κόσμος· καὶ ὡσαύτως ἐπὶ τοῦ νοεροῦ καὶ ἐμψυχίας μετέχοντος.* It was also employed, as Diog. L. tells us (VII 123), by Chrysippus, Apollodorus and Posidonius. For the answer to it see *N.D.* III 21.

**haec meliora sunt quam ea quae sunt his carentia:** the de-

monstrative *hic* is carelessly used, 1st for the concrete existence, and 2nd for the abstract quality. The thought is more correctly expressed in § 46 *quod habeat sensum et rationem et mentem, id sit melius quam id quod his careat.* For the subaudition of the abstract from the concrete see I 80 n.

**efficietur**: there seems no reason why edd. should have departed from the best MSS by reading the Pres. here: the Fut. implies 'will be proved, if we take the trouble to lay out the argument, as we have done in the previous case'. Cf. Roby § 1465.

A k (2) *The universe must be sentient, because it has sentient parts,* (3) *the universe must have an animated and rational nature, because it gives birth to what is animated and rational.* § 22.

§ 22. **nullius**: used here as Gen. of *nihil*, instead of the more common *nullius rei* Madv. § 494 *Obs.* 3. 'Where a part can feel, the whole cannot be without feeling'.

**mundi partes sentientes**: so Sext. Emp. IX 85 *ἡ τὰς λογικὰς περιέχουσα φύσεις πάντως ἐστι λογική, οὐ γὰρ οἷόν τε τὸ ὅλον τοῦ μέρους χεῖρον εἶναι,* Philo *Provid.* I 25, 32, 51, 68. Lactant. II 5 first controverts the argument (*non est mundi pars homo, sicut corporis membrum. Potest enim mundus esse sine homine, sicut urbs et domus. Atqui ut domus unius hominis habitaculum est, sic et mundus domicilium totius generis humani; et aliud est quod incolitur, aliud quod colit*), and then turns it against the Stoics, *si mundi pars est homo, quia mortalis est homo, mortalis sit et mundus necesse est, nec tantum mortalis, sed etiam omnibus morbis subjectus.* On the same principle, if the world is divine, its parts must be divine; therefore not man alone, but all sentient creatures divine. Lact. also points out the inconsistency of making the world the home of the gods (as in § 17) and then deifying the world itself.

**urget**: I 70, III 76.

**angustius**: used of close logical argument, as opposed to rhetorical amplification, cf. *Orator* 117 *erit haec facultas in eo quem volumus esse eloquentem, ut definire rem possit, neque id faciat tam presse et anguste quam in illis eruditissimis disputationibus fieri solet, sed, cum explanatius, tum etiam uberius; Part. Orat.* 139 *vel anguste disserere, ut dialectici qui appellantur, vel, ut oratorem decet, late expromere;* above § 1 *subtilitate.*

**nihil quod animi—composque rationis**: Sext. Emp. IX 77 *τὸ γεννητικὸν λογικοῦ καὶ φρονίμου πάντως καὶ αὐτὸ λογικόν ἐστι καὶ φρόνιμον,* and more technically § 101 *Ζήνων δὲ ἀπὸ Ξενοφῶντος τὴν ἀφορμὴν λαβὼν οὑτωσὶ συνερωτᾷ, τὸ προϊέμενον σπέρμα λογικοῦ καὶ αὐτὸ λογικόν ἐστιν· ὁ δὲ κόσμος προΐεται σπέρμα λογικοῦ, λογικὸν ἄρα ὁ κόσμος.* Lact. II 5 points out the fallacy, *neque mundus generat hominem...nam hominem a principio idem deus fecit, qui et mundum.* Disentangled from Stoic materialism it is the argument of the Psalmist (xciv 6) 'He that planted the ear shall he not hear?' Cf. below § 79.

**nihil—id**: for the pleonastic pronoun Allen cites III 24 *sed non omnia quae cursus certos habent, ea deo tribuenda sunt;* see also below § 27 *reliqua quarta pars mundi, ea* &c., III 34 *nihil esse ... quin id intereat,* Draeg. § 37.

**similitudine**: so Chrysippus below § 38.

**rationem conclusit**: see I 89 n.

**canentes tibiae**: *can.* is constantly used both of the instrument (*tibia cornu* &c.) and the performer, cf. § 146.

**inesset in oliva scientia**: the expression may be compared with Aristotle's illustration of a final cause in nature (*Phys.* II 8 p. 199) ἄτοπον τὸ μὴ οἴεσθαι ἕνεκά του γίνεσθαι, ἐὰν μὴ ἴδωσι τὸ κινοῦν βουλευσάμενον· καίτοι καὶ ἡ τέχνη οὐ βουλεύεται· καὶ γὰρ εἰ ἐνῆν ἐν τῷ ξύλῳ ἡ ναυπηγική, ὁμοίως ἂν φύσει ἐποίει· ὥστ' ἐν τῇ τέχνῃ ἔνεστι τὸ ἕνεκά του καὶ ἐν φύσει, and with C.'s supposition (*Fin.* IV 38) of an art of viticulture inherent in the vine.

[**fidiculas**: see Madv. on *Fin.* IV 75. Swainson.]

**numerose sonantes**: so *numerose cadere* not unfrequently in Cic., and *acute sonare R. P.* VI 18.

**idem**: if we take this as Neut. explained by *inesse musicam*, we may perhaps retain the MS reading. Otherwise, taking it as Masc., Baiter's conjecture (*item*) seems required, because the stress is on identity of procedure, not of person, cf. below § 38 *item...debere*. Ba. also reads *item* for *idem* in *Murena* § 21.

A 1. *Physical argument for divine existence.* (1) *Heat is the cause of motion and of life: the whole universe is pervaded by heat: in it we find the governing principle* (ἡγεμονικόν) *of the universe. Therefore it must have in the highest degree that reason which is found even in the inferior parts of the universe.* §§ 23—30.

The Stoic idea of the divinity of fire may be illustrated by the words of Plut. (*Conv.* VII p. 703) οὐδὲν γὰρ ἄλλο μᾶλλον ἐμψύχῳ προσέοικεν ἢ πῦρ κινούμενόν τε καὶ τρεφόμενον δι' αὐτοῦ, καὶ τῇ λαμπρότητι δηλοῦν, ὥσπερ ἡ ψυχή, καὶ σαφηνίζον ἅπαντα, and by those of a modern divine "God is the fire of this world, its vital principle, a warm pervading presence everywhere. What thing of outward nature can so picture to us the mysterious, the subtle, the quick, live, productive thought, which has always lifted men's hearts and solemnized their faces, when they have said the word 'God', as this strange thing, so heavenly, so unearthly, so terrible and yet so gracious; so full of creativeness, and yet so quick and fierce to sweep whatever opposes it out of its path?...Here is the universe full of the diffused fire of divinity". Philip Brooks *Serm. on the Candle of the Lord.*

Ch. IX § 23. **dixeram—negaram**: in English we should naturally use the preterite, where there was no danger of misconception, 'since I have

begun to treat the subject otherwise than I at first proposed, for I said the first part needed no discussion', but the Latin is more precise, marking by the difference of tense that the action *dixeram* is prior to the action *coepi agere; Verr.* IV 48 *tamen, quod antea dixeramus—argentum reddidit, Orator* 101 *redeo ad illam Platonis, de qua dixeram, rei formam, Marcell.* 1 *diuturni silentii, quo eram his temporibus usus, finem hodiernus dies attulit.* Brix cites a number of exx. from Plautus and Terence in his n. on *Captivi* prol. 17 *fugitivus ille, ut dixeram ante,* and refers to Lübbert *Syntax von quom* p. 168; see above § 14 on *evenerat.* [Caesar uses *dixeram* with this force *B. G.* II 1 § 1, 24 § 1, 28 § 1, and *demonstraveram* ib. IV 27 § 2. R.]

**rationibus physicis**: 'by scientific reasoning', 'on grounds of natural philosophy', as distinguished from the general reasoning which precedes. Cf. below § 54, § 63, § 70, *Div.* I 110 *physica disputandi subtilitate.* It may be questioned whether edd. are right in omitting the explanatory clause added in the MSS, see I 20 *physiologiam* n.

**confirmari**: the Active is read by edd. after Dav. on the ground that Balbus at once carries out his wish himself, but the Passive is similarly used *Quint. Fr.* III 1 § 2 *ea te cura liberatum volo, Att.* VIII 3 *rem publicam defensam volunt, Div.* II 34. Perhaps the Passive may have been preferred as the more modest, giving less prominence to personal agency.

**quae alantur atque crescant**: the lowest stage of organic life, cf. § 33 n. I have followed Ba. in reading *atque* for the *et quae* of MSS, because I can see nothing here to justify such precision of statement. Müller (praef. p. VIII) cites § 22 *quod animi quodque rationis est expers,* and *Leg.* III 12 *haec est enim quam Scipio laudat in illis libris et quam maxime probat temperationem,* but the latter is intentionally definite and the repetition of the Relative is also needed for clearness, while *quodque* in the former is by no means equivalent to *et quod.* With some hesitation I have retained the Subjunctive both here and in § 33, the relative clause being in the one case subordinate to the Subj., in the other to the Inf., and allowing therefore the dependent verb to be in the Indefinite Subj. ('all such things as have the property of growth', ἃ ἂν τρέφηται as opposed to τὰ τρεφόμενα), though in a direct unconditional sentence we must have had the Ind. e.g. *quae aluntur continent;* cf. Draeger § 151. 5*a*, Tusc. I 91 *natura si se sic habet, ut, quo modo initium nobis rerum omnium ortus noster afferat* (for *affert*) *sic exitium mors;* Reid on *Cato* § 42 *invitus feci ut fortissimi viri fratrem ejicerem septem annis post quam consul fuisset* (for *fuerat*)*;* Wilkins on *Orat.* II 2 *quo etiam feci libentius ut eum sermonem, quem illi quondam inter se de his rebus habuissent, mandarem litteris* (for *habuerant*); below § 46 *nec dubium quin, quod animans sit...id sit melius quam quod his careat,* where, apart from the subjunctival subordination, we should have had *quod animans est, est melius;* § 59 *dictum est de sideribus ut jam appareat multitudo nec cessantium deorum nec ea quae agant molientium.* I do not think however that we need employ this principle to explain the Subj. in *Arch.* 18 *quoties hunc vidi, cum litteram scripsisset*

*nullam, magnum numerum optimorum versuum de eis ipsis rebus, quae tum agerentur, dicere ex tempore* (see n. in Reid's ed.); the Subj. is that of indefinite repetition after the Inf.; *agebantur* would necessarily refer to a single occasion. [Mr Roby writes "I think that, where a short relative clause constituting a definition of an existing person or thing is used as the subject of the sentence, Cicero would employ the Indicative, notwithstanding its dependence on a Subjunctive, as below § 50 *quibus pubescant quae oriuntur a terra*, and in *Off.* I 51 *ut quae discripta sunt...teneantur*, ib. 89 *ut ii qui praesunt rei publicae...similes sint*, 98 *efficitur ut et illud quod ad omnem honestatem pertinet...appareat.* I should therefore prefer either to read *aluntur* and *crescunt* here, or to translate 'which are to be fed and grow'". It seems to me that a writer would use either Mood according to his feeling at the moment. He might have the class before him as a fixed and definite conception, irrespective of the changing individuals of which it is composed, and of the particular character of the proposition in which it is included. In that case he uses the Indicative, but otherwise the Subjunctive. C. combines them below § 44 (*Aristoteles*) *omnia quae moventur aut natura moveri censuit aut...quae autem natura moverentur, haec aut deorsum aut in sublime ferri*, cf. § 72 *qui precabantur* n.

**quod est calidum cietur motu suo:** *δύναμις αὐτοκίνητος* Sext. IX 76. In making fire the essential element the Stoics followed Heraclitus (cf. below III 35) and Arist. (though the latter usually prefers the word *θερμότης* to *πῦρ*, see below) *Respir.* c. 8 *τὸ ζῆν καὶ ἡ τῆς ψυχῆς ἕξις μετὰ θερμότητός τινός ἐστιν· πυρὶ γὰρ ἐργάζεται πάντα ... τὰς μὲν οὖν ἄλλας δυνάμεις τῆς ψυχῆς ἀδύνατον ὑπάρχειν ἄνευ τῆς θρεπτικῆς, ταύτην δ' ἄνευ τοῦ φυσικοῦ πυρός*, *Gen. An.* III 11 *γίνεται δ' ἐν γῇ καὶ ἐν ὑγρῷ τὰ ζῷα καὶ τὰ φυτὰ διὰ τὸ ἐν γῇ μὲν ὕδωρ ὑπάρχειν, ἐν δ' ὕδατι πνεῦμα, ἐν δὲ τούτῳ παντὶ θερμότητα ψυχικήν, ὥστε τρόπον τινὰ πάντα ψυχῆς εἶναι πλήρη*, *de Anim.* II 2 §§ 8 and 16, Trendel. p. 153[1], Zeller III p. 483[3] foll. The argument, loosely stated by C., is as follows: 'life depends upon movement; this movement is connected with the internal heat; when heat goes, life departs'; cf. Seneca *Ben.* IV 6 *unde sanguinem, cujus cursu vitalis continetur calor?*

§ 24. **quod Cleanthes docet, quanta vis:** *quod* is strictly speaking the relative explained by the following clause, as in I 2, 38, II 93 *quod nescio an ne in uno quidem versu tantum possit valere fortuna*, *Div.* II 87 *quod Carneadem Clitomachus scribit dicere solitum, nusquam se fortunatiorem* &c., cf. Tac. *Ann.* IV 4, Liv. XXVII 7, *Fin.* II 12, Caesar *B. C.* III 68, Draeg. § 484. In use *quod* becomes little more than a conjunction.

**quin is:** see Madv. § 440 a *Obs.* 3, and *N. D.* III 34 cited on *nihil—id* § 22, Roby § 1688.

**nocte et die:** Roby § 1182 cites Liv. XXV 39 *nocte ac die bina castra expugnata. Nocte* is naturally placed first in reference to the *cena.*

**reliquiis:** cf. *reliquiae cibi* § 138.

**insit calor iis quas natura respuerit:** I have followed Heind. in read-

ing *insit* for *inest*, making it a part of the argument of Chrysippus, not a direct statement by Cic., as it would otherwise be difficult to explain the Subj. *respuerit*. The Inf. *inesse* would have been more regular after the simple Relative (which I take *cujus* here to be); for its interchange with the Subj. in such cases, see n. on *exsistit* I 12 and below § 44.

**jam**: transitional, cf. I 30 n.

**venae et arteriae**: on the ancient view of these cf. § 138. Sch. refers to Gellius XVIII 10, where it is said to be a common blunder, not only with the unscientific (e.g. Ov. *Met.* X 289 *saliunt tentatae pollice venae*, Persius III 107 *tange miser venas*), but even with physicians to speak of the pulsation of the vein, *quod venae quidem suapte vi immobiles sint...arteriae autem motu atque pulsu suo habitum et modum febrium demonstrent*, and he adds the Greek definition *σφυγμός ἐστι διαστολὴ καὶ συστολὴ ἀπροαίρετος ἀρτηρίας καὶ καρδίας*. There are occasions however in which a venous pulse becomes visible (Huxley, *Elem. Phys.* p. 111). **micare**: to twitch or throb.

**animadversum est cum cor palpitaret**: so Huxley ib. p. 47 'If the heart of a living animal be removed from the body, it will go on pulsating for a longer or a shorter time, much as it did in the body'. For constr. cf. I 58 *cum te anteferret* n.; usually *animadv.* is followed by Acc., or Acc. with Inf., or Interrogative Clause. **mobiliter**: *Div.* II 129 *m. animus agitatur.*

**ut imitaretur igneam celeritatem**: 'so as to resemble the flickering of flame'.

**terra editum**: cf. I 4 and Index under *Periphrasis.*

**caloris naturam**: 'the element of fire' like *terrena natura* below; so *alvi natura* § 136, cf. n. on *animi natura* I 23.

**pertinentem**: cf. I 36; it is the *divinus spiritus* (see above § 19) *per omnia maxima et minima aequali intentione diffusus;* Sen. *ad Helv.* VIII 3 (*inferiora aeris tepent*) *eo spiritu qui omnibus animalibus arbustisque ac satis calidus est. Nihil enim viveret sine calore.*

§ 25. **conflictu**: the same word occurs *Div.* II 44 *nubium conflictu;* cf. *Aen.* VI 6 *quaerit pars semina flammae abstrusa in venis silicis.*

**terram fumare calentem**: I have printed this as a verse quotation, because it does not seem to me at all likely that C. could inadvertently have fallen into the hexameter metre, as Sch. thinks. It is true there is nothing very noticeable in the line, but neither is there in § 151 *venas penitus abditas*, or III 37 *cur se sol referat nec longius progrediatur solstiali orbi*, where see n.; or *Tusc.* II 34 *ut multus e visceribus sanguis exeat.* For the use of *fumo* see Lucr. V 469 (at dawn) *tellus fumare videtur;* Plin. *N. H.* II 42 *humidum a terra, alias vero propter vapores fumidum, exhalari caliginem certum est; Aen.* XII 338 *equi fumantes sudore.* The evaporation which takes place from newly ploughed land is of course no proof of internal heat, any more than the steaming of a damp towel before the fire, but is simply caused by the exposure of a damp surface to dry warm air. The vapour becomes visible if the exposed surface is either colder or

warmer than the overlying air: in the former case the air is cooled by contact with the ground and its moisture discharged: in the latter case, the warm earth yields more vapour than the air can retain at the given temperature. See Huxley, *Physiography*, p. 44. It is not likely that a philosophic observer, like Posidonius, would have used so weak an argument; and this appears to me an additional reason for supposing that Cic. is here illustrating the Stoic doctrine by a quotation from some Latin poet.

**ex puteis jugibus**: cf. Lucr. VI 840 *frigidior porro in puteis aestate fit umor, rarescit quia terra calore, et semina siquae forte vaporis habet propere demittit in auras...Frigore cum premitur porro omnis terra coitque et quasi concrescit, fit scilicet ut coeundo exprimat in puteos siquem gerit ipsa calorem;* Hippocr. *de Nat. Pueri* XXVI foll. τὸ κάτω τῆς γῆς τοῦ μὲν χειμῶνος θερμόν ἐστι τοῦ δὲ θέρεος ψυχρόν, because the earth is wet in winter and pressed together from the weight of water, and so admits of no ventilation, but wet substances pressed together generate heat; Arist. *Meteor.* I 12 § 11 with Ideler's n.; Strato, the successor of Theophrastus (ap. Seneca *N. Q.* VI 13), *hiberno tempore, cum supra terram frigus est, calent putei, nec minus specus atque omnes sub terra recessus; quia eo se calor contulit superiora possidenti hiemi cedens, qui cum in inferiora pervenit et eo se, quantum poterat, ingessit, quo densior, hoc validior est;* Seneca himself gives a more sensible account of the matter (*N. Q.* IV 2) *Oenopides Chius ait hieme calorem sub terris contineri; ideo et specus calidos esse et tepidiorem puteis aquam... Aqua et specus et putei tepent, quia aera rigentem extrinsecus non recipiunt; ita non calorem habent, sed frigus excludunt;* Macrob. *Sat.* VII 8 § 10 *usu tibi compertum est aquas quae de altis puteis hauriuntur fumare hieme, aestate frigescere* foll., Plin. *N. H.* II 106, XXXI 2, Theoph. *Fr.* 3 § 16 Wimmer, Diod. I 41. From a comparison of the passages quoted from Lucr. and Hippocr. it seems that *ea* before *hieme* must refer to *terrae*, not to *vis;* there is great awkwardness in the unnecessary *in terris* which follows—perhaps the Pl. generalizes, meaning terrestrial heat generally, while the S. *terra* refers to the particular spot where the well is situated—but in any case *calorem* would be more awkward, if we understand *ea* of *vis caloris*. Sch. compares the repetition of *aquae* § 26, *natura* III 28 (and 34), *belua R. P.* II 67. Most edd. alter the Subjunctives *contineatur, sit, contineant*, but they are intentionally used to show that C. is here merely a reporter, and does not vouch for the validity of the reasons assigned.

**vis caloris**: cf. I 54 n. and *potestas plumbi* Lucr. V 1241.

**terrae cavernis**: so in § 151. The order *vis terr. cav. cal.* is very unusual.

Ch. X § 26. **longa est oratio**: cf. I 19 *longum est.*

**terra concipiat semina**: 'receives in its bosom', so *Divin.* II 68 *censes ante coronam herbae exstitisse quam conceptum esse semen?*

**ipsa ex se generata**: i. e. by spontaneous generation, αὐτόματος γένεσις Arist. *An.* II 4 § 2 (*generatio aequivoca*). Compare Arist. *Hist. An.* V 1 κοινὸν μὲν οὖν συμβέβηκε καὶ ἐπὶ τῶν ζώων, ὥσπερ καὶ ἐπὶ τῶν φυτῶν· τὰ μὲν

γὰρ ἀπὸ σπέρματος ἑτέρων φυτῶν, τὰ δ' αὐτόματα γίνεται, συστάσης τινὸς τοιαύτης ἀρχῆς, καὶ τούτων τὰ μὲν ἐκ τῆς γῆς λαμβάνει τὴν τροφήν, τὰ δ' ἐν ἑτέροις ἐγγίνεται φυτοῖς, ὥσπερ εἴρηται ἐν τῇ θεωρίᾳ τῇ περὶ φυτῶν, also c. 19 and VI 15, *Gen. An.* I § 11 τὰ μὲν γὰρ (τῶν φυτῶν) ἐκ σπέρματος γίνεται, τὰ δ' ὥσπερ αὐτοματιζούσης τῆς φύσεως· γίνεται γὰρ ἢ τῆς γῆς σηπομένης ἢ μορίων τινῶν ἐν τοῖς φυτοῖς. ἔνια γὰρ αὐτὰ μὲν οὐ συνίσταται καθ' αὑτὰ χωρίς, ἐν ἑτέροις δ' ἐγγίνεται δένδρεσιν, οἷον ὁ ἰξός (mistletoe); for other exx. see Bonitz's Index under αὐτόματος, Theoph. *H. P.* II 1 αἱ γενέσεις τῶν δένδρων καὶ ὅλως τῶν φυτῶν ἢ αὐτόμαται ἢ ἀπὸ σπέρματος κ.τ.λ., ib. III 1 § 4, and, on aequivocal generation of animals, *Meteor.* IV 1 § 18 Ideler, II p. 449, Sext. Emp. *P. H.* I 14 § 40, Lucr. II 871, V 797. The words *stirpibus infixa* are, I think, equivalent to ἑτέροις ἐγγίνεται φυτοῖς in the passages quoted from Arist., and refer to parasitic plants, such as the mistletoe, *quod non sua seminat arbos* (*Aen.* VI 206), and perhaps to fungous growths. Spontaneous generation is probably mentioned as giving the strongest proof of the generative virtue of heat (*calido solis concreta vapore*). For *ipsa* see Roby § 2264 b.

**temperatione caloris**: 'by the due proportion of heat', cf. below § 28, § 49 (*solis accessus et recessus*) *caloris modum temperant*, § 131 (*ventorum flatu nimii temperantur calores*, Aristotle (*Anima* II 4 § 8) makes heat the condition, not the cause of growth, δοκεῖ δέ τισιν ἡ τοῦ πυρὸς φύσις ἁπλῶς αἰτία εἶναι τῆς τροφῆς καὶ τῆς αὐξήσεως· καὶ γὰρ αὐτὸ φαίνεται μόνον τῶν σωμάτων ἢ τῶν στοιχείων τρεφόμενον καὶ αὐξανόμενον...τὸ δὲ συναίτιον μέν πως ἐστίν, οὐ μὴν ἁπλῶς γε αἴτιον, ἀλλὰ μᾶλλον ἡ ψυχή. **ea**: on the pleonastic Demonstrative see above § 24 *nihil...id*.

**ipse liquor aquae**: 'the very fact of the fluidity of water, independently of any other proof'. So in Lucr. I 454 *liquor* is said to be the property of water, as heat of fire. The MSS generally read *effusio* after *declarat*. Probably this is a gloss to explain *liquor*. In a few MSS the text is altered to make it grammatical. It is an objection to Madv.'s emendation (*et fusio*) that it creates confusion by interposing a noun of the same gender between the relative and its antecedent. **primum**: this is opposed to *atque etiam maria* below.

**nive pruinaque concresceret**: we should rather have expected *in nivem pruinamque* as we find *umorem in lapidem concrescere* Plin. *N. H.* XXXVI 45. In Lucr. III 20 (*nix concreta pruina*) we have a similar expression, where *pruina* is Abl. of Cause, being used loosely of frost, and we might at first sight be inclined to explain it similarly here, since *frigoribus* must certainly denote a cause; but the addition of *nive* seems to show that we must take these ablatives to denote the manner of congelation, as probably in Virg. *G.* II 376 *frigora...cana concreta pruina.* [Swainson cites Ov. *M.* V 673 *rigido concrescere rostro ora videt.*]

**frigoribus**: 'frost', may be added to Draeger's list (§§ 7, 8) of plural abstracts used for concretes, cf. below § 98.

**frigoribus adjectis**: 'through the application of different kinds of

cold'. There is something tempting in Heind.'s emendation *adstrictus*, which is constantly used of the effect of cold, as by Lucr. v 436 *Scythicas adstringens Bosporus undas;* but *adjectis* corresponds to *admixto* in the previous sentence; we find it often used for the making up of potions in Celsus, as *adjicere sulphur aquae.*

**tabescit:** cf. Lucr. VI 964 (*sol*) *nives radiis tabescere cogit* and Liv. XXI 36 *tabes liquentis nivis* 'slush'.

**maria tepescunt:** Min. 18 *Britannia sole deficitur, sed circumfluentis maris tepore recreatur* (the Gulf Stream, as we say). Sch. quotes Plut. *N. Q.* c. 8 *τὴν τῆς θαλάσσης σύμφυτον οὖσαν θερμότητα ἐκριπίζουσι μᾶλλον οἱ ἄνεμοι καὶ τρέφουσιν.*

**aer qui natura est maxime frigidus:** Aristotle explained the origin of the four elements out of the original ὕλη (the potentiality of material existence) by the combination with it of the four contraries, hot, cold, wet, dry; fire is matter which is warm and dry, air matter which is warm and moist, water is cold and moist, earth cold and dry; but the distinctive and prominent quality of fire is heat, of air moisture, of water cold, of earth dryness. The Stoics not unnaturally interchanged the characteristics of air and water. See Zeller III 439 foll., Arist. *Gen. Corr.* II 1 *ἡμεῖς δὲ φαμὲν εἶναί τινα ὕλην τῶν σωμάτων τῶν αἰσθητῶν, ἀλλὰ ταύτην οὐ χωριστὴν ἀλλ' ἀεὶ μετ' ἐναντιώσεως, ἐξ ἧς γίνεται τὰ καλούμενα στοιχεῖα...ὥστε πρῶτον μὲν τὸ δυνάμει σῶμα αἰσθητὸν ἀρχή, δεύτερον δὲ αἱ ἐναντιώσεις, λέγω δ' οἷον θερμότης καὶ ψυχρότης, τρίτον δ' ἤδη πῦρ καὶ ὕδωρ καὶ τὰ τοιαῦτα*, ibid. 3, *Meteorol.* I 2, IV 1 with Ideler's nn. and, on the Stoics, Diog. L. VII 137 *τὰ δὴ τέτταρα στοιχεῖα εἶναι ὁμοῦ τὴν ἄποιον οὐσίαν, τὴν ὕλην, εἶναι δὲ τὸ μὲν πῦρ τὸ θερμόν, τὸ δὲ ὕδωρ τὸ ὑγρόν, τὸν δὲ ἀέρα τὸ ψυχρόν, καὶ τὴν γῆν τὸ ξηρόν*, Seneca *Ep.* 31 *nihil sine aere frigidum.* Plutarch (*de Primo Frigido* c. 9, p. 948), after arguing that cold is not a mere absence of heat, says that Empedocles and Strato assigned the quality of cold to water, the Stoics to air (p. 952 *Χρύσιππος ἀέρα πρώτως ψυχρόν*), but that it might with equal justice be ascribed to earth.

§ 27. **ille vero et multo quidem calore admixtus est:** 'No indeed: it has an admixture of heat, and a very considerable admixture too'. For exx. of the emphatic *vero* see I 86 and Index, also *Div.* II 114 *nonne ea praedixit quae facta sunt? Ille vero, et ea quidem quae*...ib. § 132, *Off.* I 89. Ruhnken wished to omit the sentence as a mere repetition of what precedes, but Stamm (p. 32) rightly defends it as natural to the warmth of debate, comparing § 94 *et multo quidem*, III 40 *mihi quidem sane multi videntur.* On the heat contained in air, see Seneca *N. Q.* II 10 *summa pars ejus* (*aeris*) *siccissima calidissimaque et ob hoc etiam tenuissima est propter viciniam aeternorum ignium* (see below § 117)...*inferiora quoque tepent, primum terrarum halitu, qui multum secum calidi adfert, deinde quia radii solis replicantur...deinde etiam illo spiritu, qui omnibus animalibus arbustisque ac satis calidus est; nihil enim viveret sine calore...hae tot partes ejus, fertiles rerum, habent aliquid teporis, quoniam quidem*

*sterile frigus est, calor gignit. Media ergo pars aeris ab his submota in frigore suo manet. Natura enim aeris gelida est.* Plutarch cites (*Prim. Frig.* p. 951) Posidonius as witnessing involuntarily that the water which sends up the vapour is the cause of the coldness in the air.

**oritur ex respiratione aquarum:** cf. Arist. *Gen. Corr.* II 3 ὁ δ' ἀὴρ θερμὸν καὶ ὑγρόν, οἷον ἀτμὶς γὰρ ὁ ἀήρ, Stob. *Ecl.* I 446 (Chrysippus holds) ἀπὸ τοῦ ὕδατος τὸν ἀέρα ἐξῆφθαι καθάπερ ἐξατμισθέντα σφαιρικῶς καὶ περικεχύσθαι, Philo *Incorr. Mundi* § 21 (γῆ) τηκομένη εἰς ὕδωρ μεταλαμβάνει τὴν μεταβολήν, τὸ δ' ὕδωρ ἐξατμιζόμενον εἰς ἀέρα, *Plac. Phil.* I 3 § 26 p. 877 (Heraclitus and Hippasus held) ὕδωρ ἀναθυμιώμενον ἀέρα γίνεσθαι. See on the interchange of the elements generally § 84 and 117 with the nn. **respiratio:** apparently not used elsewhere in the sense of ἀναθυμίασις.

**is autem:** i.e. *vapor.*

**quam similitudinem:** 'the likeness of which', Roby § 1279. Sch. quotes two instances from *Fin.* V 42 *ea sequimur ad quae nati sumus. Quam similitudinem videmus in bestiis,* and *suam cuique rei naturam esse ad vivendum ducem: quae similitudo in genere etiam humano apparet,* where Madv. cites *Off.* I 14 'man has a natural perception of symmetry in outward things, *quam similitudinem natura ab oculis ad mentem transferens* seeks the fitting mean in action', *Orat.* II 53 *hanc similitudinem scribendi multi secuti sunt,* i.e. a style of writing like that before described. Madv. notes (1) the peculiarity in the use of the abstract *similitudo* for the concrete, for which he cites *Tusc.* IV 23 *dum morbis corporum comparatur morborum animi similitudo*=*morbi similes comparantur;* and (2) the case of the pronoun made loosely to agree with the governing substantive, for which he cites *Fin.* II 66 *stuprata per vim Lucretia se ipsa interfecit. Hic dolor populi Romani causa libertatis fuit,* where *hic*=*hinc ortus,* III 11 *haec defensio*=*hujus rei def.,* cf. Nepos *Lys.* 3 *quo dolore incensus* for *cujus dolore, Dat.* 9 *in quo itinere* 'in the journey to which place', Cic. *Lael.* 3 *in eam ipsam mentionem* =*ejus rei ment.* (where see Seyffert), ib. 2 *in eum sermonem incidere qui tum multis erat in ore,* 38 *ex hoc numero*=*ex horum numero, pro Mil.* 74 *qua invidia*=*cujus inv.;* similarly, 1 Pet. iii 21 ὃ καὶ ὑμᾶς ἀντίτυπον νῦν σώζει.

**in iis aquis quae effervescunt:** the readings vary, and I think it possible that Allen may be right in supposing the original to have been *in aeneis quae eff.* The syllable *aen* would easily be lost after *in,* and it would be natural to supply *aquis.* Heind. inserts *in aeneis* after *quae,* citing Plin. *N. H.* XX 19 *lento igni in aeneo subfervefactis* (*sordibus*).

**subditis ignibus:** cf. Liv. VIII 50 *domum ambitiosam subdito igne concremavit,* and other exx. in Dav.

**quarta pars mundi:** the 4th element was divided by the Stoics into (1) the πῦρ τεχνικόν or ether, Aristotle's πέμπτη οὐσία, the seat of life and reason, which, while it permeated this lower world, being mixed up with the three other elements, as above stated, and showing itself especially in all animated beings (*hic noster calor* § 30, *ignis corporeus* § 41), existed in its purest form in the higher regions of space where it is collected into the

heavenly bodies (*ardor caelestis qui aether vel caelum nominatur* § 41); and (2) the πῦρ ἄτεχνον (*hic noster ignis quem usus vitae requirit, confector consumptorque omnium*, ib.).

**ea et ipsa**: on the pleonastic demonstrative see above § 22, 24, 26, *Fin.* v 23 *ista animi tranquillitas, ea est ipsa beata vita*, where Madv. says *gravius insignitur ea notio quae in substantivo inest*, ib. 22 *conjunctio...id ipsum honestum quod effici vult, id efficit turpe*, cf. Draeg. § 37.

**natura fervida**: from a comparison of § 26 *aer qui natura est frigidus*, it would seem that we must translate this 'fiery by nature' rather than 'of a fiery nature'.

§ 28. **simili parique**: often joined, as in § 153; so *par et aequalis, par et idem;* but sometimes contrasted, as in Quint. x 1 § 102 (of Livy and Sallust) *pares magis quam similes.* The phrase is here used to allow for the distinction which might be made between fire and ether, or between the πῦρ ἄτεχνον and πῦρ τεχνικόν, cf. below § 41.

**in tanta diuturnitate**: 'that its continued preservation for so long a time is due to a like element', Roby § 1975; cf. §§ 51, 95 *in omni aeternitate*, 36 *in aeterno temporis spatio.*

**in omni natura fusum**: cf. *fusus in corpore* § 18.

**a quo**: somewhat rare with *nascor*, but the connexion is obscured by the length of the sentence, cf. below § 60 *a deo natum.*

**procreandi vis—gignendi**: the male and female principles of generation, cf. Arist. *Gen. An.* II 3 πάντων μὲν γὰρ ἐν τῷ σπέρματι ἐνυπάρχει, ὅπερ ποιεῖ γόνιμα εἶναι τὰ σπέρματα, τὸ καλούμενον θερμόν· τοῦτο δ' οὐ πῦρ οὐδὲ τοιαύτη δύναμίς ἐστιν, ἀλλὰ τὸ ἐμπεριλαμβανόμενον ἐν τῷ σπέρματι καὶ ἐν τῷ ἀφρώδει πνεῦμα καὶ ἡ ἐν τῷ σπέρματι φύσις, ἀνάλογον οὖσα τῷ τῶν ἄστρων στοιχείῳ, ib. I 1, II 1, also *Respir.* c. 8 cited on § 23, *anim.* II 4 § 8 cited on § 26. The Stoics insisted much on the analogy between creation and generation, and marked this by the term λόγος σπερματικός used of the divine element of fire, see nn. on § 57, 81, 86. The fact that heat is necessary for birth and growth is here taken to prove that it possesses a generative power.

**quorum stirpes terra continentur**: for similar periphrasis see § 83 *ea quae a terra stirpibus continentur* and Index. Note that the mood is here unaffected by the subjunctival subordination.

Ch. XI § 29. **natura est igitur quae contineat mundum.** None of the edd. question the MS reading here, but it seems to me very unsuitable to the context. From § 23 the argument has been as follows: 'animal and vegetable life is sustained by internal heat, which is the cause of all motion. This heat is also the source of life in the universe. Traces of it may be seen in the sparks of flints, hot springs, the very fluidity of water. Nay even air, the coldest element, contains heat'. Then in § 29 it proceeds 'this living principle must be the ruling principle of the world, it must possess all the properties of its parts, it must be rational and sensitive, it must in fine be a soul'. But the prominent position of *natura* would imply rather that it

followed an argument, such as we have below § 82 and in Sext. Emp. IX 81, to prove that the unifying principle of the world is a φύσις and not a mere ἕξις. Unless some such argument has been lost here, I think the true reading must be *Est igitur ignea quaedam natura* or something of the kind. Again the prominence given to *natura* makes more awkward the recurrence of the word in another sense just below. I cannot agree with Sch. in taking it as a predicate of the foregoing subject *calidum illud*.

**contineat:** C. uses this word to translate συνέχω, by which the Stoics expressed the organic unity of the world. In spite of the centrifugal tendency of some of its parts it is held together by the all-pervading ether, and in a less degree by the second active element, air, see below § 83, 115, 117 and Plut. *Comm. Not.* 49 γῆν μὲν γὰρ ἴσασι καὶ ὕδωρ οὔτε αὑτὰ συνέχειν οὔτε ἕτερα, πνευματικῆς δὲ μετοχῇ καὶ πυρώδους δυνάμεως τὴν ἑνότητα διαφυλάττειν· ἀέρα δὲ καὶ πῦρ αὑτῶν τε εἶναι δι' εὐτονίαν ἐκτατικά (expansive owing to their own elasticity), καὶ τοῖς δυσὶν ἐκείνοις ἐγκεκραμένα τόνον παρέχειν καὶ τὸ μόνιμον καὶ οὐσιῶδες, cf. *Stoic. Rep.* 43. Similarly we have *calore teneantur* 31, *sustineantur* 28, *retinentur* 30, cf. Hirzel p. 94, Arist. *Phys.* v 2 p. 226 b.

**omnem naturam:** 'every thing that exists by nature, i.e. every element or organism', referring apparently to *mundus*, not to *natura* above.

**quae non solitaria sit:** 'provided it does not stand alone and is not a simple substance'. The argument is given with more precision by Sextus IX 119 καὶ μὴν ἐν παντὶ πολυμερεῖ σώματι καὶ κατὰ φύσιν διοικουμένῳ ἔστι τι τὸ κυριεῦον· καθ' ὃ καὶ ἐφ' ἡμῶν μὲν ἢ ἐν καρδίᾳ τοῦτο τυγχάνειν ἀξιοῦται ἢ ἐν ἐγκεφάλῳ ἢ ἐν ἄλλῳ τινὶ μέρει τοῦ σώματος· ἐπὶ δὲ τῶν φυτῶν οὐ κατὰ τὸν αὐτὸν τρόπον, ἀλλ' ἐφ' ὧν μὲν κατὰ τὰς ῥίζας, ἐφ' ὧν δὲ κατὰ τὴν κόμην, ἐφ' ὧν δὲ κατὰ τὸ ἐγκάρδιον (the pith). ὥστε ἐπεὶ καὶ ὁ κόσμος ὑπὸ φύσεως διοικεῖται πολυμερὴς καθεστώς, εἴη ἄν τι ἐν αὐτῷ τὸ κυριεῦον καὶ τὸ προκαταρχόμενον τῶν κινήσεων· οὐδὲν δὲ δυνατὸν εἶναι τοιοῦτον ἢ τὴν τῶν ὄντων φύσιν, ἥτις θεός ἐστιν. See ib. § 102. The Stoics held τὸν ὅλον κόσμον, ζῷον ὄντα καὶ ἔμψυχον καὶ λογικόν, ἔχειν ἡγεμονικὸν μὲν τὸν αἰθέρα or, in the equivalent phrase of Chrysippus and Posidonius, τὸν οὐρανόν (Cleanthes preferred τὸν ἥλιον), Diog. L. VII 139, Zeller III p. 137.

**cum alio juncta:** Madv. *Fin.* p. LXVI n. *totam disputationem Cicero obscuravit et inanem reddidit, cum σῶμα πολυμερές sic interpretatus est, non, ut debuit, 'quae esset ex pluribus partibus ipsa composita'.*

**principatus:** also used in *Tusc.* I 20 (*Plato triplicem finxit animum, cujus principatum, id est rationem, in capite sicut in arce posuit*) for the Stoic τὸ ἡγεμονικόν, better translated *principale* by Seneca *Ep.* 92 1, &c. Diog. L. gives the definition (VII 159) ἡγεμονικὸν εἶναι τὸ κυριώτατον τῆς ψυχῆς, ἐν ᾧ αἱ φαντασίαι καὶ αἱ ὁρμαὶ γίνονται καὶ ὅθεν ὁ λόγος ἀναπέμπεται· ὅπερ εἶναι ἐν καρδίᾳ, cf. Sext. Emp. IX 102 πάσης γὰρ φύσεως καὶ ψυχῆς ἡ καταρχὴ τῆς κινήσεως γίνεσθαι δοκεῖ ἀπὸ ἡγεμονικοῦ καὶ πᾶσαι αἱ ἐπὶ τὰ μέρη τοῦ ὅλου ἐξαποστελλόμεναι δυνάμεις ὡς ἀπό τινος πηγῆς τοῦ ἡγεμονικοῦ ἐξαποστέλλονται, ὥστε πᾶσαν δύναμιν τὴν περὶ τὸ μέρος οὖσαν καὶ περὶ τὸ

ὅλον εἶναι διὰ τὸ ἀπὸ τοῦ ἐν αὐτῷ ἡγεμονικοῦ διαδίδοσθαι. The word is constantly recurring in Epictetus and Aurelius.

**ut in homine mentem**: the regular construction would have been *ut est mens in homine*, but the verb is omitted, and the subject subordinated to the general construction *necesse est habere;* for exx. of similar attraction see I 82 *Sospitam*, 86 *quam te*, and Madv. *Fin.* II 88.

**quiddam simile mentis**: so Arist. *Hist. An.* VIII 1 p. 588 ἔνεστι γὰρ ἐν τοῖς πλείστοις καὶ τῶν ἄλλων ζῴων ἴχνη τῶν περὶ τὴν ψυχὴν τρόπων... ὡς γὰρ ἐν ἀνθρώπῳ τέχνη καὶ σοφία καὶ σύνεσις, οὕτως ἐνίοις τῶν ζῴων ἐστί τις ἑτέρα τοιαύτη φυσικὴ δύναμις, cf. *Fin.* V 38 *sunt bestiae quaedam in quibus inest aliquid simile virtutis, ut in leonibus, ut in canibus, ut in equis, in quibus non corporum solum, ut in suibus, sed etiam animorum aliqua ex parte motus quosdam videmus;* Seneca *de Ira* I 3 *muta animalia humanis affectibus carent: habent autem similes illis quosdam impulsus;* Chalcidius *in Tim.* c. 217 (cited by Hirzel p. 214) *habent quippe etiam muta vim animae principalem, qua discernunt cibos, imaginantur, declinant insidias, praerupta et praecipitia supersiliunt, necessitudinem recognoscunt, non tamen rationabilem, quin potius naturalem. Solus vero homo ex mortalibus principali mentis bono, hoc est ratione, utitur, ut ait idem Chrysippus.*

**rerum appetitus**: more fully described below § 34 *cum quodam appetitu accessum ad res salutares, a pestiferis recessum.*

**radicibus inesse principatus**: so Aristotle says (*P. A.* IV 7) that plants have their head and their mouth in their roots.

[**omnium rerum potestate dominatuque dignissimum**: 'most worthy of authority and lordship over all things'. So the *pater familias* has *potestas* over his children, *dominium* over his slaves. R.]

§ 30. **in partibus mundi**: we have had the argument from the rationality of the part to that of the whole before in §§ 18 and 22.

**et acriora quidem**: so above § 18 *et eam quidem acriorem*, and just below *acerrimo ardore.*

**res omnes complexa teneat**: so of the circle *figuras o. c. continet* § 47.

**natura divina contineri**: for the absence of the preposition cf. § 16 *quo conficiuntur*, 83 *terra natura tenetur*, 85 *nat. regatur*, Madv. *Fin.* IV 17 *natura tributum*, and *Acad.* I 28 cited below: for its use, below § 33.

A 1 (2) *The mundane heat is far purer than our earthly heat, therefore it must possess the properties of heat, motion and life, in a higher degree; and it acts freely, not under any coercion from without.* §§ 30, 31.

**perlucidior**: more brilliant, free from smoke or haze.

**retinentur**: 'are preserved' (kept back from dissolution), =*retinetur in vita Fin.* III 61.

§ 31. **non agitatus ab alio**: Chrysippus held εἶναι τὸ ὂν πνεῦμα κινοῦν ἑαυτὸ πρὸς ἑαυτό, ἢ πνεῦμα ἑαυτὸ κινοῦν πρόσω καὶ ὀπίσω, Stob. *Ecl.* I 374.

**quod pellat—teneatur**: 'so as to set in motion a heat that is to hold the world together'.

**quid potest esse mundo valentius**: for this and for the whole passage compare the view of Antiochus as given in *Acad.* I 28 *partes esse mundi omnia quae insint in eo, quae natura sentiente teneantur, in qua ratio perfecta insit, quae sit eadem sempiterna (nihil enim valentius esse, a quo intereat); quam vim animum esse dicunt mundi, eandemque esse mentem sapientiamque perfectam, quem deum appellant;* and Chrysippus ap. Plut. *Sto. Rep.* p. 1050 nothing can resist the will of nature διὰ τὸ μήτ' ἔξωθεν εἶναι τὸ ἐνστησόμενον τῇ οἰκονομίᾳ, μήτε τῶν μερῶν μηδὲν ἔχειν ὅπως κινηθήσεται ἢ σχήσει ἄλλως ἢ κατὰ τὴν κοινὴν φύσιν, see below, § 35 *nulla res potest impedire.*

A 1 (3) *What is self-moved is soul: the mundane heat is self-moved and therefore of the nature of soul.* (4) *If the universe were not possessed of reason, the whole would be inferior to the part which is possessed of reason, which is absurd.* § 32.

Ch. XII § 32. **audiamus enim**: gives a reason for the penultimate sentence.

**Platonem...deum**: Cicero's own opinion of Plato is given in a well-known sentence, *Tusc.* I 39 *errare me hercule malo cum Platone...quam cum istis* (deniers of immortality) *vera sentire*, and *Att.* IV 16 *deus ille noster Plato*, cf. *Leg.* III 1; but in this he merely follows the eclectic Stoics; thus we read of Panaetius (*Tusc.* I 79) *Platonem omnibus locis divinum, sapientissimum, sanctissimum, Homerum philosophorum appellat*, cf. *Fin.* IV 79; and of Posidonius, whom C. is here copying, Galen tells us (*Hipp. Plat.* p. 421) that he was a great admirer of Plato καὶ θεῖον ἀποκαλεῖ. On the other hand the older Stoics e.g. Chrysippus argued strongly against Plato, cf. Galen ib. p. 468 K καὶ περὶ τούτων ὁ Χρ. ἐπηρεάζει τὸν Πλάτωνα. For the use of the term *deus* cf. *Orat.* I 106 *equidem te (Crassum) in dicendo semper putavi deum*, II 179 *dispositio argumentorum in qua tu (Antonius) mihi semper deus videri soles*, ib. III 53; Augustine (*C. D.* II 14) says of Labeo, the mime, *Platonem L. inter semideos commemorandum putavit, sicut Herculem, sicut Romulum; semideos autem heroibus anteponit, sed utrosque inter numina collocat.*

**duo placet esse motus**: Plato *Tim.* 89 τῶν δ' αὖ κινήσεων ἡ ἐν ἑαυτῷ ὑφ' ἑαυτοῦ ἀρίστη κίνησις· μάλιστα γὰρ τῇ διανοητικῇ καὶ τῇ τοῦ παντὸς κινήσει ξυγγενής...ἡ δὲ ὑπ' ἄλλου χείρων. He uses this contrast to prove the divine existence *Leg.* X 892—898, and *Phaedr.* 245, a passage translated by C. in *Tusc.* I 53, and *R. P.* VI 28, see following nn. and below § 44.

**unum suum**: for exx. of *se, suus*, referring to other than the subj. of the sentence see §§ 124 *sui conservandi*, 158 *se esse generatos.*

**hunc autem motum in solis animis**: thus given *Tusc.* I 54 *cum pateat igitur aeternum id esse quod a se ipso moveatur, quis est qui hanc*

*naturam animis esse tributam neget? inanimum est enim omne quod pulsu agitatur externo; quod autem est animal, id motu cietur interiore et suo: nam haec est propria natura animi atque vis;* and just before, *ita fit, ut motus principium ex eo sit quod ipsum a se movetur.* The argument from the fact of motion to a First Mover was also employed by Aristotle, *Met.* XII 6 p. 1071 b ἔστι τὶ ἀεὶ κινούμενον κίνησιν ἄπαυστον...ἔστι τοίνυν τι καὶ ὃ κινεῖ: and by the Stoics, cf. Sextus IX 75 τὴν τῶν ὅλων ὕλην θεωροῦντες κινουμένην...εὐλόγως ἂν σκεπτοίμεθα τὸ κινοῦν αὐτήν· τοῦτο δὲ οὐκ ἄλλο τι πιθανόν ἐστιν εἶναι ἢ δύναμιν τινὰ δι' αὐτῆς πεφοιτηκυῖαν, καθάπερ ἡμῖν ψυχὴ πεφοίτηκεν· αὕτη οὖν ἡ δύναμις ἤτοι αὐτοκίνητός ἐστιν ἢ ὑπ' ἄλλης κινεῖται δυνάμεως (*ad infinitum*, which is absurd), ἔστι τις ἄρα καθ' ἑαυτὴν αὐτοκίνητος δύναμις, ἥτις ἂν εἴη θεία καὶ ἀΐδιος.

**esse ponit**: Wyttenbach's assertion that the Latin idiom is either *in animis ponit*, or *in animis esse statuit*, is disproved by Madv. *Fin.* v 73 *positum est a nobis in iis esse rebus*, Acad. I 19 *corporis autem alia ponebant esse in toto, alia in partibus.*

**mundi ardor—animus**: Plato held that the world was a living creature and divine (ζῷον ἔμψυχον ἔννουν τε *Tim.* § 11) but still it was created, the work of the Demiurgus. He did not believe in any thinking matter, as the Stoics did, and would never have identified *ardor* with *animus;* cf. Cic. *Tim.* c. 6 *sic deus ille aeternus hunc perfecte beatum deum procreavit* (out of the four elements), *animumque ut dominum atque imperantem oboedienti praefecit corpori;* c. 14 *animus sensum omnem effugit oculorum, at ignis, anima, aqua, terra, corpora sunt, eaque cernuntur.*

**mundum universum pluris esse quam partem**: Sext. IX 85 οὐ γὰρ οἷόντε τὸ ὅλον τοῦ μέρους χεῖρον εἶναι.

**hominem, quoniam rationis esset participeps, pluris esse quam mundum oporteret**: the readings here are noticeable; in three lines we have (according to edd.) *est—sit—est—esset—est—est—esse;* but the authority for the 3rd *est* is only a correction in one of Orelli's MSS ($V^2$), and for the 4th an original reading in one (B), and a correction in two others (AV). *Esset* is the original reading of all his six MSS in the former case, and of five out of the six in the latter. I believe that the latter *esset* at any rate is right; and had indeed written this as a conjectural emendation in the margin, before I discovered that it was the original reading. It is subordinated to the Inf. in order to show that it gives the reason for the following *pluris esse*, not for the preceding *pars est*, and the tense is attracted to that of the principal verb, as in passages quoted on *mallem audire* § 2. It is possible that *qui esset* also may be right, meaning 'though he is a part', but I think that Cic. would have shrunk from repeating *esset* so often with a different force, and that this *esset* has arisen merely from careless assimilation. The corrections in AV were probably intended for this *qui esset*. For the thought compare Pascal *Pensées* I 6 'l'homme n'est qu'un roseau...mais c'est un roseau pensant. Il ne faut pas que l'univers entier s'arme pour l'écraser ... Mais quand l'univers l'écraserait,

l'homme serait encore plus noble que ce qui le tue, parce qu'il sait qu'il meurt...l'univers n'en sait rien'.

A m. *Argument from the Scale of Existence.* (1) *We observe the gradual ascent from vegetable to animal life, from animal to human, the last showing the potentiality of virtue and wisdom: hence we infer a yet higher stage, the divine, which is essentially and always virtuous and wise.* §§ 33, 34.

§ 33. **incohatis naturis**: 'rudimentary orders of being', cf. I 56 *incohatam* n., *Leg.* I 27 *prima et incohata intellegentia*, *Tim.* c. 4 *quae sunt nobis nota animantia sunt...omnia in quaedam genera partita aut incohata, nulla ex parte perfecta*, 'the only perfect animal is that ideal which the Demiurgus copied in making the world'. The argument from the Scale of Existence appears first in Arist. fr. 15 καθόλου γὰρ ἐν οἷς ἐστί τι βέλτιον, ἐν τούτοις ἐστί τι καὶ ἄριστον· ἐπεὶ οὖν ἐν τοῖς οὖσιν ἐστὶν ἄλλο ἄλλου βέλτιον, ἔστιν ἄρα τι καὶ ἄριστον, ὅπερ εἴη ἂν τὸ θεῖον. It was borrowed from him by Cleanthes (ap. Sext. IX 88) εἰ φύσις φύσεώς ἐστι κρείττων, εἴη ἄν τις ἀρίστη φύσις· εἰ ψυχὴ ψυχῆς ἐστι κρείττων, εἴη ἄν τις ἀρίστη ψυχή· καὶ εἰ ζῷον τοίνυν κρεῖττόν ἐστι ζῴου, εἴη ἄν τι κράτιστον ζῷον· οὐ γὰρ εἰς ἄπειρον ἐκπίπτειν πέφυκε τὰ τοιαῦτα. 'Of all creatures on earth man is best, but he cannot be the absolutely best owing to his moral and physical weakness. No! man is ἀτελὲς καὶ πολὺ κεχωρισμένον τοῦ τελείου. That which is perfect must be fulfilled with all virtues and unapproachable by evil (πάσαις ταῖς ἀρεταῖς συμπεπληρωμένον καὶ παντὸς κακοῦ ἀνεπίδεκτον); and this perfection we ascribe to God alone'. The physical argument is given in greater detail, ibid. § 81 'the life of the universe shows itself in four degrees of power (1) ἕξις the unifying principle in inorganic matter, (2) φύσις the principle of growth in plants, (3) ψυχή the principle of movement in animals, (4) λογικὴ ψυχή or νοῦς in man; by which of these is the universe itself held together? Not by simple ἕξις, as in stones, for that admits of no change, but by some form of φύσις, and that the highest form viz. the rational soul'. Cic. here omits the lowest grade and distinguishes two grades of the rational soul, the imperfect belonging to man, the perfect existing only in God (as in Sext. § 88 and Anton. VI 14 where see Gataker). Compare Philo *Mund. Op.* § 24 τῶν ὄντων τὰ μὲν οὔτε ἀρετῆς οὔτε κακίας μετέχει, ὥσπερ φυτὰ καὶ ζῷα ἄλογα...τὰ δὲ αὖ μόνης κεκοινώνηκεν ἀρετῆς, ἀμέτοχα πάσης ὄντα κακίας, ὥσπερ οἱ ἀστέρες· οὗτοι γὰρ ζῷά τε εἶναι λέγονται καὶ ζῷα νοερά· μᾶλλον δὲ νοῦς αὐτῶν ὁ ἕκαστος, ὅλος δι' ὅλων σπουδαῖος καὶ παντὸς ἀνεπίδεκτος κακοῦ· τὰ δὲ τῆς μικτῆς ἐστι φύσεως, ὥσπερ ἄνθρωπος, ὃς ἐπιδέχεται τὰ ἐναντία, φρόνησιν καὶ ἀφροσύνην...ἀρετὴν καὶ κακίαν, ib. § 50 on the λογικαὶ θεῖαι φύσεις, who may be justly called μεγαλοπολῖται, citizens of the universe. Other passages bearing on the Physical Scale are cited by Zeller IV 192[3]. It is really a development of Aristotle's doctrine of the soul (*Anim.* II 3) 'the vital principle of organized bodies

manifests itself in an ascending scale of functions, nutritive (θρεπτικόν), sentient (αἰσθητικόν), locomotive (κινητικόν), appetitive (ὀρεκτικόν), rational (διανοητικόν)'. Cf. *Fin.* v 33—40 and below §§ 82, 86.

**prima advertimus**: the edd. read *primum* or *primo*, but I think we may understand the reading of the MSS as referring back to *primis incohatisque naturis;* 'the first and lowest class in which we observe the sustaining power of nature, is that which constitutes the vegetable kingdom'.

**a natura sustineri**: nature personified as in § 83 *a terra stirpibus contineri*, § 133 *a natura sustinentur*, *Invent.* I 35 *ab natura datus* (but in § 36 *natura datam*), *Orat.* I 215 *interdictum a rerum natura aut a lege aliqua.* For exx. of the omission of the preposition see § 30 *natura contineri*, *Tusc.* I 56 *natura sustentari.*

**quae gignantur**: for Subj. cf. the exactly similar sentence in I 97 *an quicquam tam puerile dici potest, quam si ea genera beluarum quae in rubro mari gignantur, nulla esse dicamus?* and above § 23 *alantur* n. Perhaps the Subj. is used here in order to make a distinction between the definition of a class, and the further statement of a fact respecting that class, by the Ind. **tribuit**, for Imp. Subj. following proper Perf. see n. on I 3 *fuerunt qui censerent.*

**alendo atque augendo**: cf. above § 23 *alantur atque crescant;* so Arist. *Eth.* I 13 describes τὸ φυτικὸν (or θρεπτικὸν) μόριον τῆς ψυχῆς as the cause τοῦ τρέφεσθαι καὶ αὔξεσθαι. In § 120 however Cic. allows that some kinds of plants make an approach to the habits of animals. Posidonius seems to have softened down the broad demarcation drawn by Chrysippus between the different kingdoms of nature; thus he noticed that the zoophytes shared in the appetites (ἐπιθυμία), but not in the emotions (τὸ θυμοειδές) of animals (Galen *Hipp. Plat.* p. 476), and he not only agreed with Plato and Aristotle in dividing the human soul into rational and irrational elements (ibid.) but he assigned to man all the lower forms of life, including even that principle of attraction (ἕξις) which bound together the atoms of lifeless things, cf. Diog. L. VII 139 (where, after referring to Posidonius' 3rd book περὶ θεῶν, he continues) τὸν δὲ κόσμον οἰκεῖσθαι κατὰ νοῦν καὶ πρόνοιαν, εἰς ἅπαν αὐτοῦ μέρος διήκοντος τοῦ νοῦ, καθάπερ ἐφ' ἡμῶν τῆς ψυχῆς, ἀλλ' ἤδη δι' ὧν μὲν μᾶλλον, δι' ὧν δὲ ἧττον· δι' ὧν μὲν γὰρ ὡς ἕξις κεχώρηκεν, ὡς διὰ τῶν ὀστῶν καὶ τῶν νεύρων, δι' ὧν δὲ ὡς νοῦς, ὡς διὰ τοῦ ἡγεμονικοῦ· οὕτω δὴ καὶ τὸν ὅλον κόσμον, ζῷον ὄντα καὶ ἔμψυχον καὶ λογικόν, ἔχειν ἡγεμονικὸν τὸν αἰθέρα, ib. 86 ἐφ' ἡμῶν τινα φυτοειδῶς γίνεται. We learn from Nemesius c. XV p. 96 that Panaetius, the master of Posidonius, had already commenced this reformation of the Stoic psychology, excluding Zeno's 'phonetic' and 'spermatic' faculties from the rational soul, and ranking τὸ σπερματικόν not under ψυχή, but under φύσις.

§ 34. **cum quodam appetitu—recessum**: cf. below § 58 and III 33 *nullum potest esse animal in quo non et appetitio* (ὁρμή) *sit et declinatio*

(ἀφορμή) *naturalis. Appetuntur autem quae secundum naturam sunt, declinantur contraria; Fin.* III 16 (the Stoics hold) *simul atque natum sit animal ipsum sibi conciliari et commendari ad se conservandum et ad suum statum eaque quae conservantia sunt ejus status diligenda, alienari autem ab interitu iisque rebus quae interitum videantur afferre;* Diog. VII 86 ἐκ περιττοῦ τῆς ὁρμῆς τοῖς ζῴοις ἐπιγενομένης, ᾗ συγχρώμενα πορεύεται πρὸς τὰ οἰκεῖα, τούτοις μὲν τὸ κατὰ φύσιν τῷ κατὰ τὴν ὁρμὴν διοικεῖσθαι· τοῦ δὲ λόγου τοῖς λογικοῖς κατὰ τελειοτέραν προστασίαν δεδομένου, τὸ κατὰ λόγον ζῆν ὀρθῶς γίνεσθαι τούτοις κατὰ φύσιν· τεχνίτης γὰρ οὗτος ἐπιγίνεται τῆς ὁρμῆς, *Fin.* IV 37, 38, Hirzel p. 212 foll., Schwencke p. 136.

**addidit rationem**: as mentioned above, Posidonius, whom C. follows, departed from Chrysippus and adopted Aristotle's view that each higher function of the soul involves the lower, so that all the functions are found combined with rationality in man, while the nutritive function, for instance, exists separately in vegetables. So in the parallel passage *Fin.* IV 37, describing *quod iter sit naturae, quaeque progressio*, C. continues *semper assumit aliquid, ut ea quae prima dederit, ne deserat; itaque sensibus rationem adjunxit et, ratione effecta, sensus non reliquit.*

**remitterentur—continerentur**: 'let go' )( 'hold in', a metaphor from driving horses, cf. Arist. *Eth.* VI 1 ἐστί τις σκοπὸς πρὸς ὃν ἀποβλέπων ὁ τὸν λόγον ἔχων ἐπιτείνει καὶ ἀνίησιν, *Off.* I 101 foll. *una pars (animae) in appetitu posita est, quae est* ὁρμὴ *Graece, quae hominem huc et illuc rapit; altera in ratione, quae docet et explanat quid faciendum fugiendumque sit. Ita fit ut ratio praesit, appetitus obtemperet. Efficiendum autem est ut appetitus rationi oboediant, eamque neque praecurrant, nec propter pigritiam aut ignaviam deserant...Nam qui appetitus longius evagantur et tamquam exultantes sive cupiendo sive fugiendo non satis a ratione retinentur, ii sine dubio finem et modum transeunt; Tusc.* IV 22 *intemperantia* is defined as *a recta ratione defectio ...ut nullo modo affectiones animi nec regi nec contineri queant.* The Mood is the Final Subjunctive like the preceding *regerentur.*

Ch. XIII. **natura boni**: Sch. cites Sen. *ep.* 95 § 36 (as Seneca twice cites Posidonius in the same letter, we may infer that he copies from him), *di immortales nullam didicere virtutem, cum omni editi, et pars naturae eorum est esse bonos;* Epict. IV 11 § 3 'as the Gods are φύσει καθαροὶ καὶ ἀκήρατοι, so men, in proportion as they have approached to them κατὰ τὸν λόγον, by the way of reason, are themselves participant of purity', but this is only ἀπὸ τῶν θεῶν αὐτὸ πρῶτον λαμβάνοντες, as he says in the preceding sentence; Cic. *Top.* 76 *deorum virtus natura excellit, hominum autem industria.* Such expressions must be set against others in which the Stoics appear to claim equality with God, as below § 153.

**a principio innascitur ratio**: so § 36 (twice) *a principio sapiens.* Man has the *semina rationis* which must be developed by education. As Seneca says *ep.* 90 § 44 (the whole epistle is probably taken from Posidonius) *non dat natura virtutem, ars est bonum fieri. Virtus non contingit*

*animo nisi instituto et edocto et ad summum assidua exercitatione perducto.* See my *Sketch of Anc. Phil.* pp. 227, 228. Nemesius c. I p. 21 makes the same distinction between man and all higher orders of being (*γένη δαιμόνων*) *οὐδὲν γὰρ ἐκείνων μανθάνει, ἀλλὰ φύσει οἶδεν ἃ οἶδεν.* **rat. recta constansque:** Diog. VII 88 *ὁ νόμος ὁ κοινός, ὅσπερ ἐστὶν. ὁ ὀρθὸς λόγος διὰ πάντων ἐρχόμενος ὁ αὐτὸς ὢν τῷ Διί*, Cic. ap. Lact. VI 8 *est quidem vera lex recta ratio, naturae congruens, diffusa in omnes, constans, sempiterna, quae vocet ad officium jubendo, vetando a fraude deterreat.* Sch. cites Plut. *de Virt. Mor.* c. 3 *τὴν ἀρετὴν λόγον οὖσαν ὁμολογούμενον καὶ βέβαιον καὶ ἀμετάπτωτον ὑποτίθενται.*

**supra hominem putanda:** *Tusc.* II 51 *in quo vero erit perfecta sapientia —quem adhuc nos quidem vidimus neminem, sed philosophorum sententiis qualis hic futurus sit, si modo aliquis fuerit, exponitur—is igitur, sive ea ratio quae erit in illo perfecta atque absoluta, sic illi parti imperabit inferiori* (the appetites &c.) *ut justus parens probis filiis,* see also *Sketch of Anc. Phil.* pp. 169, 170.

A III (2). *All things are striving after perfection, but in the case of the lower limited natures, this tendency cannot fulfil itself: in universal nature it can.* § 35.

§ 35. **rerum institutione:** 'plan' 'system' 'organization', see *Fin.* IV 32 (which should be compared throughout) *quae autem natura suae primae institutionis oblita est?* IV 41 *ipsa institutio hominis, si loqueretur, haec diceret, primos suos quasi coeptus appetendi fuisse, ut se conservaret in ea natura in qua ortus esset,* which Madv. explains to be the original framework or constitution (*habitum et constitutionem a natura datam*); ibid. V 24 *hanc initio institutionem* (i. e. *appetitum a natura datum ad vitam tuendam*) *confusam habet.*

**aliquid extremum atque perfectum:** cf. *Fin.* III 26 *cum enim hoc sit extremum* (*satis enim credo me jam diu, quod τέλος Graeci dicunt, id dicere tum extremum, tum ultimum, tum summum; licebit etiam finem pro extremo aut ultimo dicere*), *cum igitur extremum hoc sit congruenter naturae vivere,* &c. **esse** like *habent* below is true of the idea, not of the fact: throughout we must understand the proviso *nisi quae vis obstitit,* cf. Arist. *Pol.* I 8 *ἡ φύσις οὐδὲν ἀτελὲς ποιεῖ οὐδὲ μάτην.*

**ut in vite, ut in pecude:** in the similar passage *Fin.* IV 32 foll. we have (1) the assertion of a resemblance in the ends of all things, *nemo enim est qui aliter dixerit, quin omnium naturarum simile esset id ad quod omnia referrentur, quod est ultimum rerum appetendarum;* (2) this instanced in the case of animals, *in omni enim animante est summum aliquid atque optimum, ut in equis, in canibus...sic igitur in homine perfectio ista in eo potissimum quod est optimum, id est, in virtute, laudatur. Itaque mihi non satis videmini considerare quod iter sit naturae quaeque progressio;* (3) in the case of a plant; if a vine were gifted with understanding and

thus made capable of aiming at higher ends, it would not therefore lose its former ends l. c. § 38. (The same comparison occurs in v 39): (4) in the case of the artist, l. c. § 34 *ut Phidias potest a primo instituere signum idque perficere, potest ab alio incohatum accipere et absolvere, huic similis est sapientia: non enim ipsa genuit hominem, sed accepit a natura incohatum. hanc igitur intuens debet institutum illud, quasi signum, absolvere.* Compare also *Tusc.* v 37 (*natura*) *quicquid genuit, non modo animal, sed etiam quod ita ortum esset e terra, ut stirpibus suis niteretur, in suo quidque genere perfectum esse voluit...neque est ullum quod non ita vigeat interiore quodam motu et suis in quoque seminibus inclusis ut aut flores aut fruges fundat... omniaque in omnibus, quantum in ipsis sit, nulla vi impediente perfecta sint.* Still more is this the case in beasts, *atque earum quaeque suum tenens munus, cum in disparis animantis vitam transire non possit, manet in lege naturae...*but most of all in man; *hic igitur si est excultus...fit perfecta mens, id est absoluta ratio, quod est idem virtus.*

**naturam ad ultimum pervenire**: Arist. *Part. An.* I 1 § 10 μᾶλλον δ' ἐστὶ τὸ οὗ ἕνεκα καὶ τὸ καλὸν ἐν τοῖς τῆς φύσεως ἔργοις ἢ ἐν τοῖς τῆς τέχνης, cf. also Zeno's definition of Nature below § 57, 81, where *via progredientem*=*suo quodam itinere* here.

**pictura**: cf. *Orator* 9 *ut in formis et figuris est aliquid perfectum et excellens, cujus ad cogitatam speciem imitando referuntur ea quae sub oculos non cadunt* &c. Cicero seems to combine in his *extremum et perfectum* the ideal and the final cause, of which latter Arist. says πᾶσα τέχνη ἀγαθοῦ τινὸς ἐφίεσθαι δοκεῖ, and of the former ἡ μὲν ἀρετὴ τελείωσίς τις· ὅταν γὰρ λάβῃ τὴν ἑαυτοῦ ἀρετήν, τότε λέγεται τέλειον ἕκαστον, τότε γὰρ μάλιστά ἐστι τὸ κατὰ φύσιν, *Phys.* VII 3 p. 246 a. The Stoics seem to have dwelt more on τέλειον, the ideal, than τέλος, the end, cf. Diog. VII 89 ἡ φύσις ἀφορμὰς δίδωσιν ἀδιαστρόφους· ἀρετὴ δέ τοι ἡ μέν τις κοινῶς παντὶ τελείωσις, ὥσπερ ἀνδριάντος, καὶ ἡ ἀθεώρητος, ὥσπερ ὑγίεια, καὶ ἡ θεωρηματική, ὡς φρόνησις.

**fabrica**: so Seneca *Ep.* XC § 7 'I cannot agree with Posidonius in assigning to philosophy the glory of architecture (*fabricae*)*; illa, inquit, docuit...tecta moliri*'; Auct. *ad Herenn.* III 32 *situm loci ad suum arbitrium fabricari et architectari.* Elsewhere C. uses the more precise *architectura* (*Off.* I 151), and distinguishes *architectus* from *faber* (*Fam.* IX 2 *non modo ut architectos, verum etiam ut fabros, ad aedificandam rem publicam*).

**quendam absoluti operis effectum**: (there is in art) 'something which may be called the execution of a finished workmanship': cf. *Fin.* III 24 wisdom may be compared to the art of dancing, in so far as *in ipsa insit, non foris petatur extremum, id est artis effectio,* ib. 45 *recta effectio,* κατόρθωσιν *enim sic appello, quoniam rectum factum* κατόρθωμα. The argument founded on the idea of perfection is borrowed from Aristotle. He finds in all things an upward striving which meets in the one supreme and perfect Being. It is briefly and obscurely worded by C. and clumsily stated by Sextus IX 81 (cited on § 33 *incohatis naturis*), and in 116 'since

the horse is more admirable than the vine, the motive power (κινητικὴ αἰτία) in the horse is more admirable than that in the vine, and the motive power in the world more admirable than all other motive power. It is therefore best, and if best, must be rational and immortal, i. e. it must be Divine'.

**in omni natura**: 'in universal nature', cf. I 27, 36 = *rerum omnium natura* below.

**absolvi aliquid**: 'there is a progress towards completion', lit. 'something is in course of completion'.

**universam naturam nulla res potest impedire**: see above § 31 *quid mundo valentius?* and Philolaus ap. Stob. *Ecl.* I 418 (ὁ κόσμος) ἄφθαρτος καὶ ἀκαταπόνατος διαμένει τὸν ἄπειρον αἰῶνα· οὔτε γὰρ ἔντοσθεν ἄλλα τις αἰτία δυναμικωτέρα αὐτᾶς εὑρεθήσεται οὔτ' ἔκτοσθεν φθεῖραι αὐτὸν δυναμένα, Philo *Inc. Mund.* 503 οὐδεμίαν φθοροποιὸν αἰτίαν εὑρεῖν ἔστιν, οὔτ' ἐντὸς οὔτ' ἐκτός, ἣ τὸν κόσμον ἀνελεῖ. The argument is 'Every thing by nature aims at perfection, but in most cases this aim may be frustrated by external forces (Ar. *Phys.* II 8 § 14 ἐν δὲ τοῖς φυσικοῖς ἀεὶ οὕτως [γίνεται τὸ οὗ ἕνεκα] ἂν μή τι ἐμποδίσῃ): were there no such external force, the tendency towards perfection would be realized; but the universe has no force external to it; therefore the tendency to perfection in the universe will not be frustrated'. Cic. confuses the argument by repeating as a part of the conclusion what is really one of the premisses, viz. the fact that there is no power external to the universe: see below *quo nulla vis possit accedere.*

A m (3). *Since it is confessed that the universe is the best of all things, it cannot be limited to vegetable or animal or merely human existence. It must be actually and essentially wise and good (and therefore Divine): for a potentiality which has never risen into actuality throughout eternity would be inferior to that of man.* § 36.

§ 36. **et praesit omnibus et eam nulla res possit impedire**: change of subject as in § 38 *mundus omnia complexus est, neque est quicquam quod non insit in eo,* § 58 *quarum est cotidiana conversio nec habent cursus,* § 64 *ne cursus haberet atque ut illum alligaret.*

**quid autem est inscitius**: gives another reason (besides the universal striving after perfection) in proof of the preceding statement, that the world is *sapiens* in the strong Stoic sense.

**stirpium**: here improperly used for φυτόν instead of the ordinary periphrasis, see Madv. *Fin.* IV 13.

**deterior potius**: 'the condition of the world rather than that of man would be the inferior one'.

**homo sapiens fieri potest**: i. e. man is wise δυνάμει, but God (here the universe) is wise ἐνεργείᾳ. See above § 34.

**in spatio**: cf. *in diuturnitate* § 29.

A m (4). *Man is born to contemplate and imitate the universe to which he belongs. The universe alone is perfect and its own end. It must therefore be possessed of what is best, viz. reason.* § 37.

Ch. XIV § 37. **scite enim Chrysippus**: Bywater, *J. of Philol.* VII p. 85, gives reasons for supposing this passage to be ultimately derived from Aristotle's dialogue *De Philosophia* (cf. the parallel passage in *Fin.* II 40 cited below). For the ellipsis of the verb see Index.

**ut clipei causa involucrum**: for the Stoic love of similes cf. § 22 and below § 38. A book of Ὁμοιώματα by Ariston of Chios, a disciple of Zeno, is often cited by Stobaeus.

**cetera aliorum causa esse generata**: so Arist. *Pol.* I 8 τά τε φυτὰ τῶν ζῴων ἕνεκεν εἶναι καὶ τἆλλα ζῷα τῶν ἀνθρώπων χάριν, cf. Xen. *Mem.* IV 3 § 10, Nemesius *Nat. Hom.* I 21—28 τῶν γενομένων τὰ μὲν δι' ἑαυτὰ γέγονε, τὰ δὲ δι' ἄλλα· δι' ἑαυτὰ μὲν τὰ λογικὰ πάντα, δι' ἕτερα δὲ τά τε ἄλογα καὶ ἄψυχα: he then argues at length that other animals are made for man, man for God; see also below §§ 133, 151—153, 156—161.

**ad mundum contemplandum et imitandum**: cf. § 140 *quasi spectatores superarum rerum; Tusc.* I 69 *hominem ipsum quasi contemplatorem caeli ac deorum cultorem; Fin.* II 40 *hi (Epicurei) non viderunt, ut ad cursum equum, ad arandum bovem, ad indagandum canem, sic hominem ad duas res, ut ait Aristoteles, ad intellegendum et ad agendum esse natum, quasi mortalem deum; Cato* 77 *credo deos immortales sparsisse animos in corpora humana ut essent qui terras tuerentur, qui caelestium ordinem contemplantes imitarentur eum vitae modo atque constantia; Fin.* IV 11 *modestiam quandam cognitio rerum caelestium affert iis qui videant quanta sit etiam apud deos moderatio, quantus ordo, et magnitudinem animi deorum opera et facta cernentibus, justitiam etiam cum cognitum habeas quod sit summi rectoris ac domini numen, quod consilium, quae voluntas; cujus ad naturam apta ratio vera illa et summa lex a philosophis dicitur*, i.e. the four cardinal virtues spring from the contemplation and imitation of nature; also ibid. V 11, III 83. This is one aspect of the Stoic ὁμολογουμένως τῇ φύσει ζῆν, of the Pythagorean ἕπου θεῷ, of the Platonic ὁμοίωσις θεῷ, carried out much in the same way by Plato himself in the *Timaeus* 47 B, 'God gave us sight, that imitating τὰς τοῦ θεοῦ περιόδους πάντως ἀπλανεῖς οὔσας, τὰς ἐν ἡμῖν πεπλανημένας καταστησαίμεθα', also p. 90. See Beier Exc. on *Off.* I 13, Plut. *S. Num. Vind.* p. 550 C with Wytt.'s n.

**particula perfecti**: *Tim.* c. 4 *(mundi) omne animal quasi particula quaedam est, Leg.* I 24, Epict. *Diss.* I 14 § 6 αἱ ψυχαὶ συναφεῖς τῷ θεῷ ἅτε αὐτοῦ μόρια οὖσαι καὶ ἀποσπάσματα, Zeller IV p. 200[3].

**neque enim...partibus**: in the MSS this sentence stands at the beginning of § 37; I have transferred it to the end, as it is not really a proof of what precedes, but a part of another argument. On the other hand, the sentence *scite enim Chrysippus* is the commencement of a long piece of

reasoning ending in *propterea deus*, and might therefore properly follow § 36, as confirmatory of the conclusion there arrived at.

**undique aptum**: 'knit together on every side', cf. I 9 n. and below § 47 *aptius*, 97 *tamque inter se conexa et apta*, *Orator* 235 *facilius est apta dissolvere quam dissipata conectere*, *Acad.* II 119 (Aristotle says) *ita esse eum (mundum) undique aptum ut nulla vis tantos queat motus mutationemque moliri, nulla senectus diuturnitate temporis exsistere, ut hic ornatus* (= κόσμος) *umquam dilapsus occidat.*

**cui nihil absit**: *deesse* is used below in the same sense, cf. *Orat.* I 48 *quid huic abesse poterit de scientia* with Wilkins' n.

**omnibus suis numeris**: Schömann quotes Diog. VII 100 καλὸν λέγουσι τὸ τέλειον ἀγαθὸν παρὰ τὸ πάντας ἀπέχειν τοὺς ἐπιζητουμένους ἀριθμοὺς ὑπὸ τῆς φύσεως, ἢ τὸ τελείως σύμμετρον, cf. *Off.* III 14 *illud, quod rectum Stoici appellant, perfectum atque absolutum est, et ut idem dicunt, omnes numeros habet*, *Div.* I 23, *Fin.* III 24, Stob. *Ecl.* p. 184 (M. II p. 50) κατόρθωμα δ' εἶναι λέγουσι καθῆκον πάντας ἐπέχον τοὺς ἀριθμούς; Sen. *Ep.* 71 § 16, 95 § 5, Anton. III 1, VI 26.

A m (5). *Ideal excellence can only be found in that which is complete in all its parts; the universe alone is absolutely complete; therefore the absolute Ideal can only be found in the universe.* § 38.

§ 38. **omnia in perfectis meliora**: Arist. *Eth. Eud.* II 1 p. 1219 a 36 ἐπεὶ δὲ ἦν ἡ εὐδαιμονία τέλειόν τι, καὶ ἔστι ζωὴ καὶ τελεία καὶ ἀτελής, καὶ ἀρετὴ ὡσαύτως (ἡ μὲν γὰρ ὅλη, ἡ δὲ μόριον), ἡ δὲ τῶν ἀτελῶν ἐνέργεια ἀτελής, εἴη ἂν ἡ εὐδαιμονία ζωῆς τελείας ἐνέργεια κατ' ἀρετὴν τελείαν, *Pol.* I 13 ἐπεὶ δ' ὁ παῖς ἀτελής, δῆλον ὅτι τούτου μὲν καὶ ἡ ἀρετὴ οὐκ αὐτοῦ πρὸς αὐτὸν ἐστιν, ἀλλὰ πρὸς τὸν τέλειον καὶ τὸν ἡγούμενον, Plato *Tim.* 30 C ἀτελεῖ γὰρ ἐοικὸς οὐδέν ποτ' ἂν γένοιτο καλόν· οὗ δὲ ἔστι τἆλλα ζῷα καθ' ἓν καὶ πάντα γένη μόρια, τούτῳ πάντων ὁμοιότατον αὐτὸν (the Cosmos) εἶναι τιθῶμεν (the Demiurgus makes the Cosmos after the pattern of a complete and perfect being).

**eculeo**: Cic. *Hortens.* ap. Non. p. 105 *fame debilitatur eculeorum nimis effrenata vis*, Liv. XXXI 12. The more common form is *eculus* as in Varro *R. R.* II 7 12, 13 &c. The word *pullus* being used generally for the young of any animal, *ec.* is employed where definiteness is desired.

§ 39. **est autem nihil mundo perfectius**: I think this is probably part of the argument of Chrysippus, though Cic. has taken it out of the indirect construction; cf. for similar anacoluthon below § 125 *illud ab Aristotele animadversum quis potest non mirari? grues...trianguli efficere formam; ejus autem summo angulo aer adversus pellitur; Sulla* § 10 *hoc totum ejus modi est, ut, si ego sum inconstans...nec testimonio fidem tribui convenerit...sin est in me ratio rei publicae...nihil minus accusator debet dicere quam &c.*

**efficitur tamen in homine virtus**: *tamen* as in § 18. '*Efficitur*=*ad effectum perducitur.* Virtue is defined as the perfect development of the nature of each thing (*Leg.* I 22 *nihil aliud quam in se perfecta et ad summum perducta natura*). In the wise man this perfection is attained but rarely, owing to the *res impedientes* which surround him. In the universe there are no such hindrances, and perfection is always attained'. Sch.

**sapiens et propterea deus**: this is in accordance with the Pythagorean and Platonic sentiment that σοφός is too high a title for any but a God (*Phaedr.* 278), but the Stoics allowed the abstract possibility of a man being wise. Strictly speaking there should have been an additional clause, answering to προσέτι δὲ ἀΐδιος ἂν εἴη in Sext. IX 118, but eternity is here assumed.

A n. *The heavenly bodies also are divine:* (1) *because they are composed of the purest ether corresponding to our vital heat.* §§ 39—41.

Indirect argument, as before (§ 21), cf. Sext. Emp. IX 86 where it is shown that there must be inhabitants of ether, and that these must possess such and such qualities; and if so δοθήσεται καὶ θεοὺς ὑπάρχειν τούτων μὴ διαφέροντας.

Ch. XV. **tribuenda est sideribus divinitas**: on the divinity of the stars cf. I 25, 27, 36, 39 and II 42, 43, 54, *Acad.* II 119 (the Stoics hold) *hunc mundum esse sapientem, habere mentem, quae et se et ipsum fabricata sit et omnia moderetur, moveat, regat:...solem, lunam, stellas omnes, terram, mare deos esse, quod quaedam animalis intellegentia per omnia ea permanet et transeat; R. P.* VI 15 *homines sunt hac lege generati qui tuerentur illum globum quem in hoc templo medium vides, quae terra dicitur; iisque animus datus est ex illis sempiternis ignibus quae sidera et stellas vocatis, quae globosae et rotundae divinis animatae mentibus circulos suos orbesque conficiunt celeritate mirabili,* Zeller IV p. 190, Villoison on Cornutus p. 526 foll. The belief in the divine nature of the stars, which had long prevailed in Egypt and Babylon and to which we find allusions in Deuteron. iv 15, Job xxxi 26, was brought into vogue in Greece by Plato and his followers and held as a doctrine by all the later orthodox schools, see Plato *Leg.* VII 821, *Tim.* 40 quoted on I 30, Zeller II p. 686 foll., Aristotle quoted on I 33, Zeller III p. 466 foll., Philo quoted on II 33. Anaxagoras, Democritus and the Epicureans held that the heavenly bodies were mere dead matter. Opinions were divided among the early Fathers, some holding with Origen (*Cels.* V p. 238) that οἱ ἐν οὐρανῷ ἀστέρες ζῷά ἐστι λογικὰ καὶ σπουδαῖα, others, as Lactantius II 5, denying it. Origen's view was anathematized in the 5th council, held A. D. 553.

**mobilissima purissimaque aetheris parte**: Chrysippus held that the ἡγεμονικόν of the universe resided in τὸν αἰθέρα τὸν καθαρώτατον καὶ εἰλικρινέστατον, ἅτε πάντων εὐκινητότατον ὄντα καὶ τὴν ὅλην περιάγοντα τοῦ κόσμου

φύσιν (Ar. Did. ap. Euseb. *Pr. Ev.* XV 15 § 8); Posidonius defined ἄστρον (including under the term the sun and moon) as σῶμα θεῖον ἐξ αἰθέρος συνεστηκὸς λαμπρὸν καὶ πυρῶδες (Stob. *Ecl.* I 24 p. 540), cf. below § 92.

**neque ulla sunt admixta natura**: 'compounded of any other element', cf. for construction *aer multo calore admixtus est* § 26. Chrysippus named the sun as an instance of a being consisting only of one element, fire; the moon as an instance of a being into which two elements entered, viz. fire and air; while all four elements were combined in the nature of animals, Stob. *Ecl.* I 10 p. 315. This opinion of the mixed nature of the moon was common to most of the Stoics, who spoke of it as consisting of πῦρ θολερόν (Plut. *Fac. in Orb. L.* p. 935), as ἀερομιγής and γεωδεστέρα (Posidonius ap. Diog. L. VII 145). Pliny (*N. H.* II 9) says that the moon draws up earthly particles along with the exhalations on which it feeds, cf. Stob. *Ecl.* I 26 p. 550, Zeller IV p. 189[3], Macr. *S. Scip.* I 19 § 12.

**perlucida**: are we to take this in the sense of 'very bright' as in *Div.* I 130 *illustris et perlucida stella*, and probably *N. D.* II 30, or in the more usual sense of 'transparent', as in I 75, II 142, cf. *perlucens* II 54? Doederlein wished to keep the form *pellucidus* for this latter sense. We know that some of the Pythagoreans conceived the sun and moon to be ὑαλοειδῆ (Zeller I 839); and Plut. (*Fac. in Orb.* 929 c) refers to those who compared the substance of the moon to glass or crystal; Seneca (*N. Q.* VII 1) leaves it doubtful whether the stars were composed of fire or of earth penetrated by a fiery atmosphere. Posidonius believed that the moon received its light from the sun, and that owing to its rarity it was transfused by this light to a considerable depth (Cleom. II 4 p. 106). Anaxagoras and Democritus held the sun (some say the moon also) to be a red-hot mass of metal or stone. On the other hand we are told that Xenophanes thought that the moon was inhabited (*Acad.* II 123).

§ 40. **sensuum testimonio confirmari**: so Posidonius ap. Diog. VII 144 πῦρ μὲν οὖν εἶναι (τὸν ἥλιον) ὅτι τὰ πυρὸς πάντα ποιεῖ, Seneca *N. Q.* VII 1 that the stars are of flame *visus noster confirmat et ipsum ab illis fluens lumen et calor inde descendens.* Aristotle denied this (*de Caelo* II 7), οὔτε πύρινά ἐστιν οὔτ' ἐν πυρὶ φέρεται (τὰ ἄστρα), see below for his own view.

**immenso mundo**: Sch. takes this as Dat., Ba. and Mu. insert *in;* I am inclined to agree with Klotz that it is the Abl. of Attendant Circumstances, *non est 'in mundo immenso', sed 'cum mundus immensus sit'*; cf. I 22 *hoc spatio.*

**is ejus tactus est**: 'its influence', much the same as *appulsus* in I 24, II 141; cf. *Div.* II 97 *plus terrarum situs quam lunae tactus ad nascendum valere*, and the figurative use in *Orat.* II 60 of the influence of the study of Greek authors, *sentio illorum tactu orationem meam quasi colorari*, where the metaphor is justified by the immediately preceding comparison of the influence of the sun.

**non ut—comburat**: 'such as, I do not say, to warm only, but even to burn to ashes'.

**Oceanique alatur umoribus**: cf. below § 118 and III 37, Porphyr. *Antr. Nymph.* p. 257 *τοῖς δὲ ἀπὸ τῆς Στοᾶς ἥλιον μὲν τρέφεσθαι ἐκ τῆς ἀπὸ τῆς θαλάσσης ἀναθυμιάσεως ἐδόκει, σελήνην δ' ἐκ τῶν πηγαίων καὶ ποταμίων ὑδάτων, τοὺς δ' ἀστέρας ἐξ ἀναθυμιάσεως τῆς ἀπὸ τῆς γῆς*, Seneca *N. Q.* VI 16 § 2 *totum hoc caelum...omnes hae stellae quarum finiri non potest numerus, alimentum ex terreno trahunt...nec ullo alio scilicet quam halitu terrarum sustinentur*, ibid. II 5 § 1, Stob. *Ecl.* I p. 540, Cleom. I 11 p. 61, Posidonius Bake p. 66, Zeller IV p. 189. The doctrine became a commonplace of the poets e.g. Anacreon XIX 3 *πίνει θάλασσα δ' αὔρας, ὁ δ' ἥλιος θάλασσαν*, Lucr. I 231 *unde aether sidera pascit?* V 524, *Aen.* I 608, Lucan X 258 *nec non Oceano pasci Phoebumque polumque credimus*: it is put into the mouth of the angel by Milton *P. L.* V 415 'for know, whatever was created needs to be sustained and fed: of elements the grosser feeds the purer; earth the sea, earth and the sea feed air; the air those fires ethereal, and, as lowest, first the moon; whence, in her visage round, those spots, unpurged vapours, not yet into her substance turned. Nor doth the moon no nourishment exhale from her moist continent to higher orbs. The sun, that light imparts to all, receives from all his alimental recompense in humid exhalations, and at even sups with the ocean', cf. *Timon of Athens* IV 3 439—443. It was held by Xenophanes (Zeller I p. 500, Karsten p. 161), Anaximander (Zeller p. 206 foll.), Heraclitus (Zeller p. 622 and fr. 32 Bywater, *νέος ἐφ' ἡμέρῃ ἥλιος* with nn.), Philolaus, who speaks of the lunar vapour as part of the nourishment of the world (Zeller p. 410, Boeckh p. 111), Democritus, who identified these exhalations with the ambrosia of the poets (Zeller I p. 802). The Stoics seem to have connected it with the old belief in the sweet savour of sacrifices ascending to heaven, cf. Musonius ap. Stob. *Flor.* XVIII 43, p. 286 M. (*τοῖς θεοῖς ἀρκεῖν εἰς τροφὴν*) *τοὺς ἀπὸ γῆς καὶ ὕδατος ἀναφερομένους ἀτμούς*, and Sext. Emp. IX 73 with note of Fabricius. Aristotle had long before pointed out the absurdity of supposing that the sun was really fed by evaporation, *Meteorol.* II 2 § 5 'the exhalations which rise from the sea are condensed by the cold of the upper air and return again in rain, *διὸ καὶ γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ*: they argued that fire required nutriment; but if this were the case, the sun would be merely the combustion of ever-changing fuel. It is really like the boiling of water; the fire beneath the kettle is not fed by the steam, of which it is the cause'; ibid. 12 'all that is taken up comes down in rain sooner or later'; *Plac. Phil.* II 17 (Aristotle says) *μὴ δεῖσθαι τὰ οὐράνια τροφῆς, οὐ γὰρ φθαρτὰ ἀλλ' ἀΐδια εἶναι.*

**possit permanere**: Mu. reads *posset*, as in § 49 *in globosa forma esse non posset*, referring to his note (*Praef.* p. X) on *Acad.* II 72; this would mean 'could have continued', but there is no reason why we may not take it 'could continue under the supposed circumstances, viz. without food', cf. Roby § 1534.

**pastu**: Seneca *N. Q.* II 5 *tot sidera, tam exercitata, tam avida per diem noctemque, ut in opere ita et in pastu.*

On the two kinds of fire see n. on § 18 *unde sustulimus*, and Stob. *Ecl.* I 25 p. 538 Ζήνων τὸν ἥλιόν φησι καὶ τὴν σελήνην καὶ τῶν ἄλλων ἄστρων ἕκαστον εἶναι νοερὸν καὶ φρόνιμον πύρινον δὲ πυρὸς τεχνικοῦ· δύο γὰρ γένη πυρός, τὸ μὲν ἄτεχνον καὶ μεταβάλλον εἰς ἑαυτὸ τὴν τροφήν, τὸ δὲ τεχνικὸν αὐξητικόν τε καὶ τηρητικόν, οἷον ἐν τοῖς φυτοῖς ἐστι καὶ ζῴοις, ὃ δὴ φύσις ἐστὶ καὶ ψυχή. Aristotle seems to allow the name 'fire' for the latter in a passage from *Respir.* c. 8, quoted on § 23 *quod est calidum*, and *Anim. Gen.* III 11 cited below on *animantium ortus;* but elsewhere he argues strongly on the other side, as in *Meteor.* I 3 'if the intervals between the heavenly bodies were full of fire, and if they were themselves composed of fire, all the other elements would have been burnt up. Fire has not the power of generating life, as the sun has, πῦρ μὲν οὐθὲν γεννᾷ ζῷον...ἡ δὲ τοῦ ἡλίου θερμότης καὶ ἡ τῶν ζῴων...ἔχει ζωτικὴν ἀρχήν. The life-giving principle is πνεῦμα καὶ ἡ ἐν τῷ πνεύματι φύσις ἀνάλογον οὖσα τῷ τῶν ἄστρων στοιχείῳ (cf. Zeller III p. 483 foll.). Ether extends from the uttermost circumference to the moon, becoming less pure as it approaches the air below the moon. The upper portion of the air becomes ignited by the rapid motion of the celestial spheres and thus generates the heat we feel'; ibid. I 4 § 2 'there are two kinds of evaporation (ἀναθυμίασις), one damp from moisture, the other dry and smoke-like from earth; the latter rises higher and forms the belt of fire improperly so called, because what we know by the name of fire is the combustion of this warm vapour'; see Stob. *Ecl.* I 25 p. 534 and Theophrastus fr. III 6, where he distinguishes between τὸ θερμὸν (which is a true ἀρχή and the cause of natural growth) and fire, of which he says τὸ δὲ πῦρ γεννητικὸν μὲν αὐτοῦ, φθαρτικὸν δὲ ὡς ἐπίπαν τῶν ἄλλων, ὅθεν καὶ δῆλον ὡς ἑτέρα τις ἡ φύσις πυρὸς καὶ θερμοῦ. The difference may be illustrated by the Persian and Egyptian ideas of fire (Herod. II 16) 'the former believe it to be a god, the latter believe it to be a wild animal, which eats whatever it can seize, and then, glutted with the food, dies with the matter which it feeds upon'. Some of A.'s arguments had been previously employed by Socrates against Anaxagoras, Xen. *Mem.* IV 7 § 7 ἐκεῖνος γὰρ λέγων μὲν τὸ αὐτὸ εἶναι πῦρ τε καὶ ἥλιον ἠγνόει, ὡς τὸ μὲν πῦρ οἱ ἄνθρωποι ῥᾳδίως καθορῶσιν, εἰς δὲ τὸν ἥλιον οὐ δύνανται ἀποβλέπειν· καὶ ὑπὸ μὲν τοῦ ἡλίου καταλαμπόμενοι τὰ χρώματα μελάντερα ἔχουσιν, ὑπὸ δὲ τοῦ πυρὸς οὔ· ἠγνόει δὲ ὅτι καὶ τῶν ἐκ τῆς γῆς φυομένων ἄνευ μὲν ἡλίου αὐγῆς οὐδὲν δύναται καλῶς αὔξεσθαι, ὑπὸ δὲ τοῦ πυρὸς θερμαινόμενα πάντα ἀπόλλυται· φάσκων δὲ τὸν ἥλιον λίθον διάπυρον εἶναι καὶ τοῦτο ἠγνόει, ὅτι λίθος μὲν ἐν πυρὶ ὢν οὔτε λάμπει οὔτε πολὺν χρόνον ἀντέχει, ὁ δὲ ἥλιος τὸν πάντα χρόνον πάντων λαμπρότατος ὢν διαμένει.

§ 41. **confector**: cf. § 137 *cibus confectus coctusque*, and § 134; Sch. cites *confectrix rerum vetustas* quoted from Cic. by Lact. VII 11 § 5.

**corporeus**=*qui corporibus animantium continetur* above, 'situated in the body', so *Fin.* III 45 *rerum corporearum aestimatio splendore virtutis*

*obscuretur necesse est.* The more common sense is 'corporeal' i.e. 'consisting of body' as in *Tim.* 4.

**utri similis—similis ignium**: we have the same variety of construction below § 149 *plectri sim. cornibus sim.*, Lucr. IV 1211 *tum similes matrum materno semine fiunt, ut patribus patrio*, with Munro's n.

**et quidem reliqua astra, quae**: 'aye and the other stars, since they have their origin in ether'. It is implied that the life of the stars is not quite so easy of belief as that of the sun. There is no reason for Orelli's correction *atque item.* Müller (on *Tusc.* V 50 *praef.* p. XLIV) cites *Ac.* II 11, 50, *Fin.* II 13, III 8, V 94, *Tusc.* I 83, III 13, 14, 50, *Div.* I 112, II 77, *Orat.* 152, see above § 36 and I 79 n.

**aether vel caelum**: cf. I 33 n. and Diog. VII 139 quoted on § 29 *quae non solitaria sit.*

A n (2). *Since each of the lower elements, earth, water, air, has its living occupant, it is probable that it is so also with the highest element, ether: and since the nature of the animal depends upon the element in which it lives, it is probable that those which live in the purest and most active element will possess the keenest and purest intelligence.* §§ 42, 43.

§ 42. **animantium ortus**: for the argument compare Sext. Emp. IX 86, cited on § 17 above, 'If earth and sea, in spite of their gross nature, produce various sentient creatures, how much more will the far finer and purer element of air produce rational creatures! And indeed we have Hesiod's authority for this in the lines, in which he speaks of the myriad watchers of Zeus who haunt the earth. Further if the air is inhabited by living beings, surely the same must be true of the ether, from which we men derive our rational faculty. Such etherial beings must far transcend the creatures of earth, being uncreated and immortal'. This is further explained by a passage of Varro ap. Aug. *C. D.* VII 6, 'the universe is divided into heaven (including ether and air), and earth (including land and water): each region has its own inhabitants, immortals in heaven, mortals on earth; *ab summo autem circuitu caeli ad circulum lunae aetherias esse animas, astra ac stellas; eos caelestes deos non modo intellegi esse, sed etiam videri; inter lunae vero gyrum et nimborum ac ventorum cacumina aerias esse animas, sed eas animo non oculis videri, et vocari heroas et lares et genios.* Galen *Hist. Phil.* 124 traces this doctrine to Plato and Aristotle, Πλ. καὶ Ἀρ. τέσσαρα εἶναι ζῴων γένη λέγουσι χερσαῖα ἔνυδρα πτηνὰ οὐράνια· καὶ γὰρ τὰ ἄστρα ζῷα εἶναι καὶ αὐτὸς ὁ κόσμος ζῷον λογικὸν ἀθάνατον, cf. *Plac. Phil.* V 20. We find it in *Tim.* 40 'the Demiurgus attached to each element its appropriate animals, εἰσὶ δὲ τέτταρες, μία μὲν οὐράνιον θεῶν γένος (stars), ἄλλη δὲ πτηνὸν καὶ ἀερόπορον (birds and men), τρίτη δὲ ἔνυδρον εἶδος (fishes), πεζὸν δὲ καὶ χερσαῖον τέταρτον (beasts), τοῦ μὲν οὖν θείου τὴν πλείστην ἰδέαν ἐκ πυρὸς ἀπηρξατο, ὅπως ὅτι λαμπρότατον

*ἰδεῖν τε κάλλιστον εἴη, τῷ δὲ παντὶ προσεικάζων εὔκυκλον ἐποίει.* In the *Epinomis* § 8 we find five elements, fire, ether, air, water, earth ; the stars inhabit fire, animals and plants the earth, and the intermediate elements are inhabited by different orders of rational beings, water by nymphs &c. Zeller II p. 892[3]. The reference to Aristotle in the text is doubtless to the lost dialogue *De Philosophia* (see Bernays *Dial. Ar.* p. 102), but it agrees with occasional hints in his extant writings, e. g. *Anim. Gen.* III 11 *τὰ μὲν γὰρ φυτὰ θείη τις ἂν γῆς, ὕδατος δὲ τὰ ἔνυδρα, τὰ δὲ πεζὰ ἀέρος... τὸ δὲ τέταρτον γένος οὐκ ἐπὶ τούτων τῶν τόπων δεῖ ζητεῖν· καίτοι βούλεταί γέ τι κατὰ τὴν τοῦ πυρὸς εἶναι τάξιν, τοῦτο γὰρ τέταρτον ἀριθμεῖται τῶν σωμάτων* (though it is usually found in combination with one of the other elements), *ἀλλὰ δεῖ τὸ τοιοῦτον γένος ζητεῖν ἐπὶ τῆς σελήνης· αὕτη γὰρ φαίνεται κοινωνοῦσα τῆς τετάρτης ἀποστάσεως*, *Respir.* c. 13, *Eth.* VI 7 § 4 *καὶ γὰρ ἀνθρώπου ἄλλα* (*ζῷα*) *πολὺ θειότερα τὴν φύσιν, οἷον φανερώτατά γε ἐξ ὧν ὁ κόσμος συνέστηκεν.* These inhabitants of the fourth element (called in his later writings *τὸ ἄνω* or *ἕτερον στοιχεῖον*) are not of course to be confounded with the *pyrausta* referred to in I 103, though Philo (*Gigant.* 2) strives to bring them into connexion ; *ἀνάγκη γὰρ ὅλον δι' ὅλων τὸν κόσμον ἐψυχῶσθαι, τῶν πρώτων καὶ στοιχειωδῶν μερῶν ἑκάστου τὰ οἰκεῖα καὶ πρόσφορα ζῷα περιέχοντος· γῆς μὲν τὰ χερσαῖα, θαλάττης δὲ καὶ ποταμῶν τὰ ἔνυδρα, πυρὸς δὲ τὰ πυρίγονα...οὐρανοῦ δὲ τοὺς ἀστέρας*, 'a fortiori the air, which supplies life to the other elements, must itself be inhabited by rational beings, perceptible not to sense, but to reason', cf. Casaub. on Athen. p. 618, Apul. *D. Socr.* c. 8 foll.

**acerrimo**: cf. above, 30, 31.

Ch. XVI. **etenim**: refers to last sentence but one, see nn. on *etenim* above § 16 and I 91, also on *itaque* I 85.

**acutiora ingenia**: on the influence of climate see above § 17 n.

§ 43. **cibo quo utare**: I am indebted to Mr Roby for the following note. "I should translate, 'then again, what it is one uses as food, they think makes some difference', taking *cibo* as Predicative Dative (*Gr.* II pref. pp. XXXIII and XXXIX). Compare Lucr. VI 771 (in the earth there are many things) *cibo quae sunt*, Varro *R. R.* III 8 § 3 *cibatui quod sit, objiciunt triticum siccum in centenos vicenos turtures fere semodium*, ib. III 5 § 4 *cibatui offas positas.* In the two former exx. the Dative precedes the pronoun, and in the 3rd it stands first in the clause. We have another example of *cibo* predicative in Phaedr. IV 8 4 *haec cum temptaret, si qua res esset cibo, limam momordit* (MSS have *cibi: cibo* is Bentley's conj.). We find *utor* with a similar Dative in Varro *L. L.* X 27 *eam dicimus muliebrem* (*tunicam*) *quae de eo genere est quo indutui mulieres ut uterentur est institutum.* For the order compare further Varro *L. L.* V 131 *prius dein indutui, tum amictui quae sunt tangam*, Liv. XLII 11 *beneficiis etiam suis, ingentia quae in eum congesta erant*, Lucr. I 336 *namque officium quod corporis exstat, officere atque obstare, id in omni tempore obesset.*" Three reasons may be assigned for the order here ; it puts the new subject matter prominently

forward, it avoids the hexameter rhythm *quinetiam quo utare cibo*, it suggests that *quo* and *cibo* are in different cases.

**interesse ad mentis aciem**: the vegetarianism of the Pythagoreans is well known, cf. Mayor on Juv. XV 173, 174, Iambl. *V. P.* c. 24, Cic. *Div.* I 62 (beans were forbidden) *quod habet inflationem magnam is cibus tranquillitati mentis quaerenti vera contrariam.* Plato recommended spare eating to produce good dreams, *Rep.* IX 571 translated by C. *Div.* I 60; see for the general subject Musonius *de Victu*, Stob. *Flor.* XIX p. 159, and on the use of hellebore for restoring sanity, Juvenal XIII 97 with Mayor's n. We learn from Galen (*Hipp. Plat.* p. 466 K.) that Posidonius, in the 1st book of his περὶ παθῶν, gave a sort of summary of Plato's rules with regard to the training of children, laying stress on their diet and on that of the mothers during pregnancy, in order to prevent the preponderance of the irrational part of the soul.

A n 3. *The intelligence of the stars is shown by their orderly movements, which proceed not from nature or chance, but from their own free-will.* §§ 43, 44.

**sensum astrorum declarat ordo atque constantia**: see above on §§ 4 and 15 and below § 55. The argument is fully given by Plato *Leg.* X 897, as follows: 'it having been shown that soul is the origin of movement, and that the movements of the heavenly bodies are therefore evidences of psychical energy, the question arises as to the character of the soul by which they are actuated. This may be inferred from the character of the movement: the uniform rotatory movement of the spheres is a rational movement; therefore the soul which causes this movement is rational, and each soul presiding over any portion of the movement rational also'. Compare too the *Epinomis* 982 τοῖς ἀνθρώποις ἐχρῆν τεκμήριον εἶναι τοῦ νοῦν ἔχειν ἄστρα τε καὶ σύμπασαν ταύτην τὴν διαπόρειαν, ὅτι τὰ αὐτὰ ἀεὶ πράττει διὰ τὸ βεβουλευμένα πάλαι πράττειν...ἀλλ' οὐ μεταβουλευόμενον ἄνω καὶ κάτω...πλανᾶσθαί τε καὶ μετακυκλεῖσθαι, and Arist. *Cael.* I 3 'the celestial substance is eternal, neither increased nor diminished, and this is shown not only by reason but also by experience, ἐν ἅπαντι γὰρ τῷ παρεληλυθότι χρόνῳ κατὰ τὴν παραδεδομένην ἀλλήλοις μνήμην οὐθὲν φαίνεται μεταβεβληκὸς οὔτε καθ' ὅλον τὸν ἔσχατον οὐρανὸν οὔτε κατὰ μόριον αὐτοῦ τῶν οἰκείων οὐθέν'. On the immutability of this upper region cf. § 55 n.

**ratione et numero moveri**:=λόγῳ καὶ ῥυθμῷ or κατ' ἀριθμόν (Plato *Tim.* 37). The movements of the stars were often compared to a dance as in *Epinomis* 982 E.

**neque naturam neque fortunam**: we have here nature (φύσις), chance (τύχη), and free-will (προαίρεσις or νοῦς) opposed, as in Arist. *Eth.* III 3 § 7 αἴτια γὰρ δοκοῦσιν εἶναι φύσις καὶ ἀνάγκη καὶ τύχη, ἔτι δὲ νοῦς καὶ πᾶν το δι' ἀνθρώπων, ibid. I 9 § 5, *Phys.* II 6 § 8 ὕστερον ἄρα τὸ αὐτόματον καὶ ἡ τύχη καὶ νοῦ καὶ φύσεως· ὥστ' εἰ ὅτι μάλιστα τοῦ οὐρανοῦ αἴτιον τὸ αὐτό-

ματον, ἀνάγκη πρότερον νοῦν καὶ φύσιν αἰτίαν εἶναι καὶ ἄλλων πολλῶν καὶ τοῦδε τοῦ παντός, ibid. II 5 foll., and 4 § 5 εἰσὶ δέ τινες οἳ καὶ τοῦ οὐρανοῦ τοῦδε καὶ τῶν κοσμικῶν πάντων αἰτιῶνται τὸ αὐτόματον· ἀπὸ ταυτομάτου γὰρ γίνεσθαι τὴν δίνην καὶ τὴν κίνησιν τὴν διακρίνασαν καὶ καταστήσασαν εἰς ταύτην τὴν τάξιν τὸ πᾶν· καὶ μάλα τοῦτο θαυμάσαι ἄξιον. λέγοντες γὰρ τὰ μὲν ζῷα καὶ τὰ φυτὰ ἀπὸ τύχης μήτε εἶναι μήτε γίνεσθαι, ἀλλ' ἤτοι φύσιν ἢ νοῦν, ἤ τι τοιοῦτον ἕτερον εἶναι τὸ αἴτιον ... τὸν δ' οὐρανὸν καὶ τὰ θειότατα τῶν φανερῶν ἀπὸ τοῦ αὐτομάτου γενέσθαι, τοιαύτην δ' αἰτίαν μηδεμίαν εἶναι οἵαν τῶν ζῴων καὶ τῶν φυτῶν, κ.τ.λ., further on (II 8 foll.) Arist. discusses the relation of τὸ ἀναγκαῖον to causation, cf. also *Part. An.* I 1 § 35 foll. where the action of φύσις is compared with that of τέχνη, τύχη and ἀνάγκη. Much the same is Plato's division (*Leg.* X 888 E) λέγουσί πού τινες ὡς πάντα ἐστὶ τὰ πράγματα γιγνόμενα καὶ γενόμενα καὶ γενησόμενα τὰ μὲν φύσει, τὰ δὲ τέχνῃ (=Arist.'s νοῦς), τὰ δὲ διὰ τύχην, that all great changes are due to the former, and only slight modifications to the latter. Thus the elements exist by nature, and the world, as we see it, is produced by chance, i. e. by the fortuitous concourse of elementary particles; art enters in subsequently and gives us our systems of religion, politics, &c. They have forgotten the real first principle, Soul, the powers and properties of which are prior to the powers and properties of bodies; of these powers intelligence is the first, of which art is one development; and that which we call nature is the effect of reason and art, so that τὰ μεγάλα καὶ πρῶτα ἔργα καὶ πράξεις τέχνης ἂν γίγνοιτο...τὰ δὲ φύσει καὶ φύσις...ὕστερα καὶ ἀρχόμενα ἂν ἐκ τέχνης εἴη καὶ νοῦ. Stobaeus (*Ecl.* I 6 § 17) says that Aristotle makes four causes καθ' ἃς ἅπαντα συνίσταται, νοῦν, φύσιν, ἀνάγκην, τύχην· καὶ τούτων διπλῆν ἑκάστην, τὴν μὲν ἐν τοῖς ἀνθρωπίνοις πράγμασι, τὴν δ' ἐν ἄλλοις...τὴν δ' εἱμαρμένην οὐκ αἰτίαν μέν, τρόπον δέ τινα αἰτίας, and attributes the same classification of causes to Theophrastus, with the substitution of προαίρεσις for νοῦς, and to Anaxagoras and the Stoics, except that, omitting φύσις (which, according to the Stoic view, would include all), he adds εἱμαρμένη and τὸ αὐτόματον. See below § 88 where *casus*, *necessitas* and *mens* are opposed.

**neque naturam significat**: it is evident that *natura* is not used in the full Stoic sense, but as defined below § 81 *vim quandam sine ratione cientem motus necessarios*, cf. I 35, III 27.

**amica varietati**: cf. *Div.* II 109 *varietas quae est propria fortunae.*

**constantiam respuit**: cf. III 61, *Div.* II 18, Arist. *Phys.* II 5 ὁ λόγος ἢ τῶν ἀεὶ ὄντων ἢ τῶν ὡς ἐπὶ τὸ πολύ, ἡ δὲ τύχη ἐν τοῖς γιγνομένοις παρὰ ταῦτα.

§ 44. **nec vero Aristoteles non laudandus**: for the omission of *est* cf. § 59 *dictum etiam de sideribus*, § 67 *Vestae nomen a Graecis*, § 73 *magnus sane locus et a vestris vexatus*, § 80 *nihil autem majus mundo*, § 167 *magnis viris prosperae semper omnes res*, and *Index*.

**quae moventur—quae moverentur**: for the combination of moods see above § 23 *quae alantur* n. and below § 72 *qui precabantur* n., and

compare Dem. *Androt.* p. 600 *αἰτία ἐστίν, ὅταν τις ψιλῷ χρησάμενος λόγῳ μὴ παράσχηται πίστιν, ὧν λέγει, ἔλεγχος δέ, ὅταν, ὧν ἂν εἴπῃ τις, καὶ τἀληθὲς ὁμοῦ δείξῃ*, cited by Madv. *Gr. Gr.* § 126.

**natura, vi, voluntate**: here we have *vis* taking the place of *fortuna* above: compare Arist. *Met.* v 5 p. 1015, where, after giving an account of *φύσις*, he goes on to speak of *ἀναγκαῖον* and says in one use it is equivalent to *τὸ βίαιον, τοῦτο δ' ἐστὶ τὸ παρὰ τὴν ὁρμὴν* (=*φύσιν*) *καὶ τὴν προαίρεσιν*. So *Eth.* II 1 virtue is neither *φύσει* nor *παρὰ φύσιν* (=*βίᾳ*) but (as shown at length in bk. III) *προαιρέσει*, cf. *Cael.* III 2 *κινεῖσθαι ἀναγκαῖον βίᾳ, εἰ μὴ οἰκείαν ἔχει κίνησιν, τὸ δὲ βίᾳ καὶ παρὰ φύσιν ταὐτόν*.

**quae natura moverentur...circumferretur**: Aristotle distinguishes two kinds of simple motion, the circular and the rectilinear: the latter belongs to the sublunary elements, thus it is the nature of fire and air to rise from the centre towards the circumference, of water and earth to sink towards the centre; the former (the circular) naturally belongs to the superlunar region, the heaven and the spheres on which the heavenly bodies revolve (*ἀναγκαῖον εἶναί τι σῶμα ἁπλοῦν ὃ πέφυκε φέρεσθαι τὴν κύκλῳ κίνησιν κατὰ τὴν ἑαυτοῦ φύσιν*, *Phys.* VIII 9, *Cael.* I 2). We do not however find him ever denying that the circular movement is natural, or contrasting it, as voluntary, with the natural movements of the terrestrial elements. On the contrary he blames Plato for defining soul as the self-moving principle (*An.* I 3), and for assigning circular movements to the soul, both in the macrocosm and in the microcosm, as opposed to the rectilinear movements of bodies (*ὡς οὔσας τὰς τοῦ οὐρανοῦ φορὰς τὰς τῆς ψυχῆς κινήσεις*, ibid. § 12, cf. Plato *Leg.* x 897 foll., yet elsewhere Arist. seems to have compared the activity of *νοῦς* to circular movement, see Trend. in loc.); see also *Cael.* II 1 'it is impossible that the circular movement of the heaven should be caused by the compulsion of a soul residing in it, for that would be to attribute the fate of Ixion to such a soul. It moves by the attractive force of the First Mover, that divine supernatural principle which *κινεῖ οὐ κινούμενον*'. Still we are not to think of the heavenly bodies as consisting of brute matter, *Cael.* II 12 *ἀλλ' ἡμεῖς ὡς περὶ σωμάτων αὐτῶν μόνον, καὶ μονάδων τάξιν μὲν ἐχόντων, ἀψύχων δὲ πάμπαν, διανοούμεθα· δεῖ δ' ὡς μετεχόντων πράξεως καὶ ζωῆς...διὸ δεῖ νομίζειν καὶ τὴν τῶν ἄστρων πρᾶξιν εἶναι τοιαύτην οἵαπερ ἡ τῶν ζῴων καὶ φυτῶν· καὶ γὰρ ἐνταῦθα αἱ τοῦ ἀνθρώπου πλεῖσται πράξεις...τῷ δ' ὡς ἄριστα ἔχοντι οὐθὲν δεῖ πράξεως· ἔστι γὰρ αὐτῷ τὸ οὗ ἕνεκα*; in *Met.* XII 8 p. 1073 a, it is distinctly said that there must be besides the First Mover a separate eternal mover for each of the separate planetary movements; cf. *Cael.* II 3 *θεοῦ δ' ἐνέργεια ἀθανασία...ὥστ' ἀνάγκη τῷ θείῳ κίνησιν ἀΐδιον ὑπάρχειν. ἐπεὶ δ' ὁ οὐρανὸς τοιοῦτος* (*σῶμα γάρ τι θεῖον*) *διὰ τοῦτο ἔχει τὸ ἐγκύκλιον σῶμα, ὃ φύσει κινεῖται κύκλῳ ἀεί*, and *Plac. Phil.* II 3, Stob. *Ecl.* I 486. Proclus on *Tim.* 82 A infers the same from *Metaph.* XII 7 p. 1072 b 3 (*κινεῖ ὡς ἐρώμενον*) 'if the universe is in love with Reason and moves towards it, it must have feelings and impulses of its own'. So Theophrastus (fr. 12 §§ 7—9 Wimmer) speaks of the *ὄρεξις*

and ἔφεσις which impels the stars, and Eudemus says that the movement of the heaven must be a vital movement (ζωτική πως) like ours on earth, for it is self-impelled (Brandis *Schol.* p. 433 a 45). Arist. seems to suggest something of the kind in the *de Anima* III 11 § 3 'at times appetite (ὄρεξις) moves the will, at times the will the appetite, like the sphere', which Trendelenburg explains of the highest sphere which carries round with it all the inferior planetary spheres; the readings however vary. On the other hand there is a curious passage (*Met.* XI 10 p. 1075 a) in which necessity seems to be attributed to the movements of the heavenly bodies in contrast to the spontaneous movements of the inferior members of the universe, see Grant's comment upon it in his essay on *Aristotle's Conception of Nature.* Bernays *Dial. Arist.* p. 103 foll. thinks that Aristotle may have spoken of the stars having a motion of their own (ἐφ' ἑαυτῶν) distinct from the motion which we regard as natural, and that C.'s *voluntate* may have arisen from a confusion between this and ἐφ' ἑαυτοῖς, 'a motion depending on themselves'; but the passages cited by Bywater in the *Journal of Philology* make it probable that Arist. in his popular dialogue may have attributed voluntary action to the stars, and certainly in the preceding paragraphs of the *N. D.* the orderly movements of the stars are ascribed to their own intelligence, not to any superior power.

**pondere aut levitate**: Arist. believed that there were such qualities as absolute weight and absolute lightness, *Cael.* IV 4 ἔστι τι ἁπλῶς κοῦφον καὶ ἁπλῶς βαρύ· λέγω δ' ἁπλῶς κοῦφον ὃ ἀεὶ ἄνω, καὶ βαρὺ ὃ ἀεὶ κάτω πέφυκε φέρεσθαι μὴ κωλυόμενον· τοιαῦτα γάρ ἐστί τινα, καὶ οὐχ ὥσπερ οἴονταί τινες πάντ' ἔχειν βάρος. See the criticism in Lucr. I 1083, II 184 foll.

**in sublime ferri**: this is the reading of Orelli's MSS here and below § 141, but the edd. have omitted *in* in both places. Again in § 117, where the edd. read *sublime*, the reading of the MSS is *sublimi* or *sublimis*. We have however no variation of reading in § 101 *sublime fertur*, § 89 *sublime rapi*, § 65 *sublime fusum*, *Tusc.* I 40 *sublime ferri*, ib. 102 *sublime putrescat*, *Div.* II 67 *sublime fixa*. In the last two instances it is used without any idea of motion. These instances show that the copyists found no difficulty in the omission of the preposition; so that, unless it is contrary to the Latin idiom, there is no occasion to suppose that they have interpolated it here; and there is no *a priori* reason against *in sublime* more than against *in altum*; moreover the lexx. cite many exx. of *sublime* used with *in* and other prepositions.

**quorum neutrum contingeret**: the Inf. would have been more regular here after the simple relative, but the Subj. is sometimes substituted for it, see above § 24 *cujus in reliquiis insit*, I 12 *ex quo exstitit* with n., *Acad.* I 41 *quod erat sensu comprehensum, id ipsum sensum appellabat, et si ita erat...scientiam; sin aliter, inscientiam nominabat; ex qua exsisteret etiam opinio, quae esset imbecilla;* Madv. *Fin.* I 30, and Reid on *Lael.* 45 *qua frui non possit.*

**eorum motus in orbem circumferretur**: I have followed Sch. in omitting the *que* after *circum.* Heind. reads *circumquaque*, but that seems to be post-classical. The expression *motus ferretur* is pleonastic, like *cursus movetur R. P.* VI 18, see on *caeli impetum* below § 97.

**vi quadam majore**: the same argument is used below § 76 to prove that God governs the world. Aristotle argues (*Cael.* I 2) that the circular movement cannot be against nature, because, if it were so, it must speedily die away (as a stone thrown upward).

**motus astrorum voluntarius**: whether rightly or wrongly ascribed to Aristotle, this was certainly the Stoic doctrine, cf. § 31 *sua sponte* and below, § 54. Cleomedes I 3 makes the general movement of the heaven necessary, and the particular planetary movements voluntary, κινεῖται μὲν καὶ τὴν σὺν τῷ κόσμῳ κίνησιν ἀναγκαίως, κινεῖται δὲ καὶ ἑτέραν προαιρετικήν. In fact the word προαιρετική becomes with him technical in this application, as in II 1 pp. 81 and 84. Lucretius alludes to the Stoic doctrines V 78 *praeterea solis cursus lunaeque meatus expediam qua vi flectat natura gubernans; ne forte haec inter caelum terramque reamur libera sponte sua cursus lustrare perennes, morigera ad fruges augendas atque animantes.*

**qui videat**: hypothetical subjunctive, cf. I 43 n., II 12, 76.

**impie faciat**: cf. Philo *Incorr. Mund.* p. 489 M. 'Aristotle charged with impiety (δεινὴν ἀθεότητα κατεγίνωσκε) those who thought that the visible divinity, who embraces in himself the sun and moon and all the heavenly host, was to be compared with the works of men's hands'. Lactantius II 5 accepts the challenge here given, *si deos esse idcirco opinantur quia certos et rationabiles cursus habent, errant. Ex hoc enim apparet deos non esse, quod exorbitare illis a praestitutis itineribus non licet. Ceterum si di essent, huc atque illuc passim sine ulla necessitate ferrentur, sicut animantes in terra ...Nimirum Deus universi artifex sic illa disposuit ut per spatia caeli divina ratione decurrerent...*'if the Stoic had seen the figures of the planets moving in the orrery of Archimedes, would he have said that they moved of their own free-will?'...*inest sideribus ratio, sed Dei est illa ratio.*

**nec multum interest**: is this an unseasonable piece of anti-Epicurean polemic inserted by Cicero, or is it a caution added by the original writer against a special point in the Aristotelian theology?

**qui nihil agit—esse non videtur**: cf. I 110 *actuosa* n. and below § 76.

**vix sanae mentis existimem**: that atheism is insanity is a commonplace with Balbus, cf. 4, 16, 31, 36, 44, 55, 56, 115, 147.

## B. THE DIVINE NATURE. §§ 45—72.

a. *The Divine form, as it is seen in the beings already recognized as Divine, viz. the universe and the heavenly bodies* §§ 45—49; b. *the Divine activity as shown in the same* §§ 49—57; c. *the provi-*

*dential activity of nature* §§ 57, 58; d. *the gods of the popular religion* §§ 60—70; e. *how they are to be worshipped* §§ 71, 72.

B a (1). *The populace and the Epicureans wrongly hold that God is in the form of man.* §§ 45, 46, cf. § 59.

Compare with this I 45 foll. where Velleius, after stating the grounds on which the Epicureans believed in the existence of the Gods, goes on to describe *et formam et vitae actionem mentisque agitationem in deo;* so § 51, *quaerere soletis quae vita deorum sit, quaeque ab iis degatur aetas.*

Ch. XVII § 45. **a consuetudine oculorum**: cf. *Tusc.* I 38 (of the difficulty of conceiving the existence of the disembodied spirit) *magni est ingenii sevocare mentem a sensibus et cogitationem ab consuetudine abducere;* also § 96 and III 20. The reference is to the images of gods in human form which met the eye at every turn, cf. I 77.

**vulgo imperitos**: ['uneducated people generally'. *Vulgo*, like *partim*, was used almost like an indeclinable substantive; see the passages from Cic. and Liv. quoted in *Gr.* § 1428. R.] We find *imperiti* contrasted with *philosophi* also in III 39.

**levitas**: 'shallowness'. **confutata a Cotta**: I 46 and 76.

**nihil sit praestantius**: so even the Epicureans, as we see in the next § and I 47.

**ad praesensionem accommodem**: cf. I 37 *in animi notione tamquam in vestigio reponere*, and *Orat.* 23 *unum (Demosthenem) accommodare ad eam quam sentiam eloquentiam.*

**quam ut...judicem**: pleonastic for *quam mundum.*

**primum hunc mundum**: we should have expected this to be followed by *deinde sidera*, but the connexion is broken by a parenthesis lasting to § 49.

§ 46. **quam volet**: 'let him jest as he will'; cf. Ter. *Hec.* IV 4 12 *turbent quam velint; pro Caelio* 63 *quam velit sit potens;* ib. 67 *quam volent faceti sint; Leg. Agr.* II 34 *emere agros quam volent magno poterunt; Div.* I 56 *quam vellet cunctaretur tamen esse pereundum; Verr.* V 5 *facinus quam vultis improbum.* In the last ex. the meaning is scarcely to be distinguished from *quamvis.*

**non aptissimus ad jocandum**: cf. below § 74 and I 123 n.

**resipiens patriam**: Mart. III 20 *lepore tinctos Attico sales narrat.* Epicurus, though born in Samos, was the son of an Athenian citizen and belonged to the deme Gargettus; hence called *Gargettius, Fam.* XV 16.

**volubilis et rotundus**: cf. I 18, 24.

**necesse sit**: is not this a Stoic way of putting it? The Epicureans admitted the existence of an ideal, but this was on the ground of experience, cf. I 49.

**nihil est melius**: repeated from §§ 18, 31, 36, 38.

§ 47. **paulo post cognoscentur**: below § 57.

B a (2). *The sphere is the most perfect of solids, and circular revolution is the most perfect of movements, and this is the form and this the movement of the universe and the stars.* §§ 47—49.

Ch. xviii. **noli...doctrinae**: 'pray don't display your utter ignorance of science'. The reference is to i 24. What follows may be thus paraphrased: 'You tell us a cone is more beautiful than a sphere. That is a solecism in taste as well as in science. But supposing your ignorance in geometry excuses this, surely as a natural philosopher you ought to have understood the advantages of the sphere'.

**doctrinae**: cf. i 72 nn. *Acad.* ii 106 *Polyaenus, qui magnus mathematicus fuisse dicitur...Epicuro assentiens totam geometriam falsam esse credidit; Fin.* i 72 where the Epicurean speaker justifies his contempt for music, geometry, arithmetic, astronomy; and my *Sketch of Ancient Philosophy* p. 183 foll.

**sphaera**: the word seems to have been naturalized by Ennius, *Orat.* iii 162 *quamvis sphaeram in scaenam, ut dicitur, attulerit Ennius:* Cic. uses it below § 88 in the sense of 'orrery'.

**oculorum judicium** =*judicium subtile videndis artibus* Hor. *Ep.* ii 1 242; cf. *Orator* 150 *offendunt aures quarum est judicium superbissimum*, and below § 146.

**dumtaxat aspectu**: 'as far as the eye is concerned'. Sch. refers to Madv. *Fin.* ii 21.

**quod mihi tamen ipsum non videtur**: 'though I don't even allow *that*'.

**figura quae sola omnes alias continet**: cf. *Tim.* 6 *a quo enim animanti omnes reliquos contineri vellet animantes, hunc ea forma figuravit, qua una omnes formae reliquae concluduntur, et globosum est fabricatus, quod* σφαιροειδές *Graeci vocant, cujus omnis extremitas paribus a medio radiis attingitur: idque ita tornavit...nihil asperitatis ut haberet, nihil offensionis, nihil incisum angulis, nihil anfractibus, nihil lacunosum, omnesque partes simillimas omnium.* This is a filling out of the original (Plato *Tim.* 33) τῷ δὲ τὰ πάντ' ἐν αὑτῷ ζῷα περιελεῖν μέλλοντι ζῴῳ πρέπον ἂν εἴη σχῆμα τὸ περιειληφὸς ἐν αὑτῷ πάντα ὁπόσα σχήματα· διὸ καὶ σφαιροειδές, ἐκ μέσου πρὸς τὰς τελευτὰς ἴσον ἀπέχον κυκλοτερὲς αὐτὸ ἐτορνεύσατο πάντων τελεώτατον ὁμοιότατόν τε αὐτὸ ἑαυτῷ σχημάτων. The sphere is the limit of the dodecahedron which Pythagoras and Plato made the cosmic figure, and contains in itself all the other regular solids, in such a manner that all their angles will touch the circumference.

**nihil offensionis**: 'nothing to impinge against,' lit. 'nothing of impingement'.

**incisum angulis...anfractibus**: 'no indentation or concavity'. It is curious that though Cic. here affirms that there is no *anfractus* in the curve, he uses this term of the sun's orbit in *R. P.* vi 12 *cum aetas tua septenos octiens solis anfractus reditusque converterit*, and *Leg.* ii 19 *in*

*annuis anfractibus;* so Lucretius (v 683) of 'the unequal daily curves it makes above and below the horizon' Munro; Plin. II 71 (of the earth's sphericity) *e freto emergentibus, quae in anfractu pilae latuere, sideribus. Anfractus = ambi-fractus* (like *anceps*), properly of a twig broken so as to form a curve. Key however suggests another form of the prefix, and would divide it as *amfr-actus,* see Roby § 1843.

**eminens, lacunosum**: 'no protuberance or depression'; cf. the use of *lacuna* for a dimple, and our phrase 'pitted with smallpox'. On *eminens* see I 75 n. and 105.

**praestantissimae**: I agree with Klotz in reading the superlative, after Nonius. It is certainly more natural with *ex solidis* than the positive, and the reading of AV *praestantis sint* is easily explained by the repetition of *si* in *simae* and *sint.* Aristotle in his *Mechanica* dilates on the wonderful powers of the circle; in the *de Caelo* II 4 he calls the circle the first and most perfect of plane figures, as the sphere is of solids: so Pythagoras held τῶν σχημάτων τὸ κάλλιστον σφαῖραν εἶναι τῶν στερεῶν, τῶν δὲ ἐπιπέδων κύκλον, cf. Cleomedes I 148, Quintil. I 10 § 41, Ocellus Lucanus § 15 p. 514 Gale, 'the absence of beginning or end in the (spherical) form and (circular) movement of the world betokens its eternity'. Hence the comparison of God to the sphere by the Eleatic philosophers, and the Stoic argument for the sphericity of the world, for this form πάντων σχημάτων πρωτεύει· μόνον γὰρ τοῦτο τοῖς ἑαυτοῦ μέρεσιν ὁμοιοῦται, the world is therefore round like the sun and moon (*Plac. Phil.* I 6). Pliny *N. H.* II 2 argues that the world is round *non solum quia talis figura omnibus in partibus vergit in sese ac sibi ipsa toleranda est, seque includit et continet, nullarum egens compaginum, nec finem aut initium ullis sui partibus sentiens, nec quia ad motum...talis aptissima est* &c., see below § 117, Arist. *Cael.* II 14. Lactantius III 24 derides the notion of a round earth *propter antipodas,* so Chrysostom and Augustine.

**circulus**: so MSS, but Nonius p. 432 reads *circus,* a form which we find elsewhere in C. e.g. *Aratea* 248 *vidisti magnum candentem serpere circum,* and in *R. P.* VI 16 edd. read with one MS *circus elucens,* ib. 15 Macrobius has *circos,* see Osann's n.

**a medioque tantundem undique absit extremum**: MSS with unimportant exceptions have *a medioque tantum absit extremum,* which is nonsense; one or two add *quantum idem a summo,* but that does not improve matters, *idem* should naturally refer to *extremum,* but would have to be taken of *medium;* then *extremum* is not the same as *imum,* and even if we pass over these difficulties, the definition is still defective; in any figure you can find a point equidistant from the two extremes of a line passing through it. Most edd. have been satisfied with the emendation (*tantundem* for *tantum*) suggested by Allen and Madvig (Schn. *Philol.* II p. 140), but this is not enough; we must state that the circumference is in every part equidistant from the centre, as in *Tim.* 6 *globosum, cujus omnis extremitas paribus in medio radiis attingitur.* The word *extremitas* is also

used by Pliny *N. H.* II 17 for circumference, *sicut in illis propinquitas centri accelerat, ita in his extremitas circuli; extremum* by Varro *R. R.* I 51 *omne brevissimum in rotundo e medio ad extremum* (cited by Mü. praef. on *Fin.* I 17). Klotz followed by Sch. proposed to complete the definition by inserting *ubique* after *medioque*, but this use of *ubique* was denied to be Ciceronian, see Lachmann on Lucr. p. 250, Kühner's translation (where he refers to his ed. maj. of the *Tusculans* p. 525[4]), and Sch. *App.*, and the emendation was abandoned by Sch. in his last ed. I propose to read *undique* after *tantundem*, cf. *undique ad inferos tantundem viae est, Tusc.* I 43. It may be objected that *undique* should properly denote the starting-point, to which it is here opposed; but I think it may be understood generally to mean 'on every side', like *ab omni parte*, without reference to motion. [This might be illustrated from Boethius *Art. Geom.* p. 394 ed. Friedlein, *plana vero summitas quae aequaliter rectis lineis undique versum finitur*, 'a plane surface is one which is bounded by right lines in every direction'. For the use of *ab* see *Gr.* § 1813. R.] Failing this, I should adopt Brieger's *absit omne extremum*, see his *Beitr. z. Krit. d. Cic.* Posen 1873, pp. 18, 24. Fleckeisen (*Jahrb. f. Cl. Ph.* x p. 142) seems to me to have utterly failed in his endeavour to defend the old reading.

**aptius**: 'more compact', cf. § 37 *undique aptum.*

§ 48. **eruditum pulverem**: cf. *Tusc.* v 64 *a pulvere et radio excitabo... Archimedem, Fin.* v 50 *quem ardorem studii censetis fuisse in Archimede, qui dum in pulvere quaedam describit attentius, ne patriam quidem captam esse senserit?* Aristoph. *Nub.* 177 *κατὰ τῆς τραπέζης καταπάσας λεπτὴν τέφραν, κάμψας ὀβελίσκον εἶτα διαβήτην λαβὼν κ.τ.λ.*, Persius I 131 *nec qui abaco numeros et secto in pulvere metas scit risisse vafer* with Conington's n., Seneca *Ep.* 74 § 27 *utrum majorem an minorem circulum scribas, ad spatium ejus pertinet, non ad formam. Licet alter diu manserit, alterum statim obduxeris et in eum, in quo scriptus est, pulverem solveris, in eadem uterque forma fuit*, ibid. 88 § 39 *geometriae pulvis*, and compare the story of the shipwrecked Aristippus cheering his companions by pointing to the traces of geometrical figures on the seashore, Vitr. VI *praef.* [add Plut. *Dion.* 13, Sil. XIV 677, Apul. *Ap.* p. 426 Oud., Tert. *Idol.* 9, Ambr. *Hex.* v 86, Ammian. XXII 16 § 17. J. E. B. M.]

**physici**: the Epicureans are so called on account of the importance they attached to the study of natural philosophy as driving away superstitious fears, cf. I 77 n.

**aequabilitatem motus—ordinum**: 'this uniformity of motion and these unchanging ranks (of stars)'; cf. §§ 15, 90, 96, 116, Diog. VII 140 *ἕνα τὸν κόσμον εἶναι...σχῆμα ἔχοντα σφαιροειδές, πρὸς γὰρ τὴν κίνησιν ἁρμοδιώτατον τὸ τοιοῦτον, καθά φησι Ποσειδώνιος.* Aristotle (*Cael.* II 8) speaks more guardedly *πρὸς τὴν ἐν αὐτῷ κίνησιν* (i.e. rotation) *ἡ σφαῖρα τῶν σχημάτων χρησιμώτατον*, but the opposite for onward movement.

**nihil potest indoctius**: so I read with the majority of the better MSS. For the omission of *esse* cf. *Fin.* IV 48 *quo nihil potest brevius*, where Madv.

cites *Att.* VIII 38 *hoc quicquam pote impurius?* adding *sic saepius in hoc negativo conparandi genere post 'potest' omittitur 'fieri' vel 'esse'.* See also Madv. on *Fin.* V 84, Holden on *Off.* III 39.

**posse fieri ut sit alia figura**: Epic. ap. Diog. X 45 κόσμοι ἄπειροί εἰσιν εἴθ' ὅμοιοι τούτῳ εἴθ' ἀνόμοιοι, for the atoms are infinite in number and not all used up in making a single world; cf. below § 88, Lucr. II 1048 foll., and my *Sketch of Ancient Philosophy* p. 184 foll. on the easy indifference with which the Epicureans acquiesced in a number of incompatible hypotheses.

§ 49. **bis bina quot essent**: I know of no other instance of this phrase in Latin, but it occurs in Galen *Hipp. Plat.* VIII p. 654 οἱ μαθόντες οὕτω πιστεύουσι τῷ συμπεράσματι (the argument by which Euclid proves the central position of the earth) ὡς καὶ τῷ δὶς δύο τέτταρα εἶναι. [Cf. Diog. L. VI 26 σύ, φησίν, ἐὰν ἐρωτηθῇς δύο καὶ δύο πόσα ἐστίν κ.τ.λ. J. E. B. M.] On the use of the distributive numeral in multiplication see Roby *Gr.* I p. 443. For tense see Madv. § 383 and my n. on *mallem* above § 2.

**didicisset—diceret**: 'he would not have been saying such things, if he had (previously) learnt'.

**palato—palatum**: 'while he makes the palate his test of happiness (cf. *Fin.* II 29) he forgot to look up to what Ennius calls the palate of the sky', cf. Varro ap. Aug. *C. D.* VII 8 *palatum Graece* οὐρανόν *appellant, et nonnulli poetae Latini caelum vocaverunt palatum.* The same pun is found in Clem. Al. *Paedag.* II 1 ἡμῖν δὲ τοῖς θηρωμένοις τὴν βρῶσιν τὴν ἐπουρανίαν ἄρχειν ἀνάγκη τῆς ὑπὸ τὸν οὐρανὸν γαστρός, and Athen. VIII 34 where a witticism of Theocritus of Chios (fl. at the end of the 3rd century B.C.) is reported. A certain Diocles, who had squandered his estate by luxurious living, having burnt his palate with hot fish, Th. said it only remained for him to drink up the sea, and then ἔσῃ τρία τὰ μέγιστα ἠφανικώς, γῆν καὶ θάλασσαν καὶ οὐρανόν. Columna, in his note on the line in Ennius p. 327 says *hac tempestate Neapoli mulierculae palati concavitatem vulgo palati caelum dicunt*, and Sch. cites Grimm in Haupt's *Zeitsch. f. Deutsch. Alt.* VI p. 541 as giving parallels from other languages. So Lucr. IV 624 *linguai templa* of the palate. Οὐρανός is the ordinary term used by Arist. *Part. An.* II 17, Dion. Hal. *Comp. Verb.* XIV 95; Galen (*Us. Part.* VII 5) uses οὐρανίσκος.

**caeli**: Gen. of Definition (Roby § 1302) like *caeli clipeo* Enn. *Iphig.* fr. 1 Vahl.

Ch. XIX **cum duo sint genera siderum**: 'whereas there are two kinds of heavenly bodies, one of which moving from east to west in unchangeable courses never makes the slightest deviation from its path, while the other completes two unbroken revolutions in the same courses and paths' &c. The first reference is to the general celestial movement by which the fixed stars are carried round the polar axis; the second to the double movement of the planets, partly carried round with the fixed stars by the general celestial movement, and partly revolving round the earth (as was supposed) with a movement of their own. Cf. below § 102, 118 on the stars generally. The contrast between the general movement of the heaven and the

particular movements of the planets, is brought out clearly in Plato *Tim.* 34 foll. thus summed up by A. Butler: 'Pl. first presents us with two vast spheres which embody the principles of Same and Different (ταὐτὸν καὶ θἄτερον). The outer sphere includes the innumerable multitude of the fixed stars: the inner sphere is subsequently divided by the divine Artist into seven spheres, which revolve with various velocities, and in various directions'. Eudoxus resolved the complex apparent movements of the planets into the simple circular movements of several supporting spheres, ὧν τὴν μὲν πρώτην τὴν τῶν ἀπλανῶν ἄστρων εἶναι, τὴν δὲ δευτέραν κατὰ τὸν διὰ μέσων τῶν ζῳδίων (Arist. *Met.* Λ 8 p. 1073 b). Cleomedes I 3 illustrates the double movement by the comparison of people on board ship walking in a direction opposite to that in which the vessel was going, or to an ant going round the potter's wheel in a direction opposite to that of its movement. The apparent daily movement of the outer sphere from east to west in the plane of the equator, is of course due to the daily rotation of the earth, the 'different' movement of the planets is due to their periodic revolution round the sun in the plane of the ecliptic.

**nullum—vestigium inflectat**: does not bend aside (lit. inwards) a single step of its course, as the sun does to north and south, but describes a perfect circle.

**continuas conversiones**: this is a true description according to our modern astronomy, but scarcely agrees with what is said below § 51, as to their varying rates of motion and occasional pauses.

**isdem spatiis**: Abl. of Place; the sun, moon and planets are in the same stadium or race-course (cf. Virg. *G.* I 513, *Aen.* V 316), viz. the zodiac. If we distinguish between *spatiis* and *cursibus*, the former would be the broad band in which all the movements take place, the latter the particular line followed by each without change in successive periods. Cf. *isdem spatiis* in § 103, and *eadem spatia Orat.* III 178, also *Tusc.* I 68 *tum videmus in eodem orbe in duodecim partes distributo quinque stellas ferri, eosdem cursus constantissime servantes disparibus inter se motibus.*

**ex utraque re**: C. fails here, as he has done before (cf. I 87), to bring out the argument, which should be 'we gather from the observation both of planets and fixed stars that circular movement is the law of the heavenly bodies, and this movement requires a spherical shape, therefore they are all spheres'.

**volubilitas**: 'rotatory movement', cf. I 18. **rotundi ambitus**: 'circular revolutions'.

B b. *The divine activity as shown* (1) *in the salutary movements of the sun.* § 49.

**astrorum tenet principatum**: *R. P.* VI 17 (*sol*) *dux et princeps et moderator luminum reliquorum.*

**larga luce compleverit**: perhaps a reminiscence of Lucr. II 806 *larga cum luce repleta est*, and V 281 *largus item liquidi fons luminis.*

**opacet**: 'leaves in shade', cf. Soph. *Aj.* 674 δεινῶν τ' ἄημα πνευμάτων ἐκοίμισε στένοντα πόντον, Hor. *Od.* I 3. 15, V. *Ecl.* II 26, *G.* IV 484, *Aen.* III 69; Sch. cites § 102 below *sol tristitia contrahit terram*, Hor. *C. S.* 9 *alme sol curru diem qui promis et celas.*

**umbra terrae soli officiens**: Heind. emends, after Gesner, *officientis.* It is the earth, not its shadow, which intercepts the light of the sun, and so makes the conical shadow called night (*umbra terrae meta noctis Div.* II 17). Beier (*Jahn's Jahrb.* 1827. 3 p. 25) cites on the other side Hyg. *Poet. Astr.* IV 9 *noctem dicemus umbram terrae esse eamque obstare lumini solis.*

**ipsa enim**: 'for it is just the earth's shadow, which makes night', i.e. it is no more than this, a mere negative result of the sun's action. I think *officientis* suits better this minimization of activity.

**eadem est aequabilitas**: 'there is the same evenness (regularity) in the nightly as in the daily courses; and the same sun tempers the degrees of heat and cold by neither departing too far nor approaching too near'. C. is of course inaccurate in saying that summer is caused by the greater proximity (*accessus*) of the earth to the sun: if so, all the earth would have summer at the same time, but when the south pole is turned towards the sun, the northern hemisphere is in winter, when the northern is turned towards him we have summer, as in fact we read below *inflectens cursum ad septentriones* &c. Cf. Vitr. IX 1 § 13.

**circumitus orbium**: the words *spatia, cursus, orbis, circumitus* may all be used in the same sense, but here *circ.* means the actual traversing of the path (*orbis*) of the sun, cf. *Tim.* 9 *nox et dies...unum circumitum orbis efficit.* As regards the case of the numerals, almost all the MSS have *trecentorum*, but the edd. apparently agree in taking them as Nominatives. I think, if it were so, we should probably have had the Sing. *orbis*, '365 journeys over the sun's path'; and that the MS reading gives the true sense 'the traversings of 365¼ diurnal rounds complete the round of the year', i.e. if we follow the sun's track throughout these diurnal revolutions, we shall find that while each day's course is different, yet at the end of the year he has completed the circuit of the heaven and returned to the point from which he originally started.

**quarta fere diei parte addita**: Julius Caesar reformed the calendar in B.C. 46, two years before the publication of the N. D. See *Dict. of Ant.* under *Calendarium.*

**hiemi senescenti**: see below § 95 *lunae senescentis*, Plin. *Ep.* VI 16 § 6 *spiritus senescens* (of a volcano). Allen quotes Varro *L. L.* V 2 *mensis senescentis extremus dies.*

B b (2). *The divine activity as shown in the salutary movements of the moon.* § 50.

§ 50. **solis annuos cursus spatiis menstruis luna consequitur**: 'the moon in her monthly heats overtakes the yearly courses of the sun', i.e. traverses the zodiac in a month instead of a year, cf. Plin. *N. H.* II 9 *in duodecim mensium spatia oportere dividi annum, quando ipsa* (*luna*) *toties solem redeuntem ad principia consequatur;* Lucr. V 618 *lunaque mensibus id spatium videatur obire, annua sol in quo consumit tempora cursu.*

**proximus accessus**: at the new moon.

**defectibus**: 'by gradual diminution'. Georges compares Solinus XXVII 3 *sali defectus vel incrementa;* so we have, of the waxing and waning moon, *crescente, deficiente luna* Gell. XX 8; *nam et defectui lunae compatiuntur elementa, et processu ejus quae fuerant exinanita cumulantur* Ambr. *Hex.* IV 7.

**regio (mutatur)**: Plin. *N. H.* II 9 (*luna*) *nunc in Aquilonem elata nunc in Austros dejecta;* Macrob. *S. Sc.* I 6 § 53 *septem diebus ab extremitate septentrionalis orae oblique per latum meando ad medietatem latitudinis pervenit, qui locus appellatur eclipticus; septem sequentibus a medio ad imum australe delabitur; septem aliis rursus ad medium obliquata conscendit: ultimis septem septentrionali redditur summitati.*

**aquilonia**: all the better MSS have *Aquilenta*, which is only found elsewhere in Varro *Sat. Men.* ap. Non. 351 (Buecheler § 400) of the moon, *contremula aquilenta apud alta litora oreris ac nobilis omnibus reluces.* It is explained in the Lexx. as 'watery', fr. *aqua*, like *turbulenta* from *turba.* The form *aquilentanus* 'northern' occurs in Chalcid. *Tim.* 67 and 69. *Aquilonius* is used by Varro *Sat. Men.* 77 ap. Non. p. 139, Livy (so Madv. for *Apolloniam*) XL 58 § 8, and frequently in Pliny. *Aquilonaris* is found in a doubtful fragment of Cic. Orelli p. 1057 § 14, *Aquilonalis* in Vitr. IX 4 § 3 and Gromat. vet. 332. 30, 334. 1 (chiefly from Georges' Lex.).

**in lunae quoque cursu**: there seems no reason to alter the reading of the MSS by the insertion of *inde.* There are three different facts connected with the moon's 'solstice', the approach of the moon's orbit to the north, the pause (properly called *solstitium* in the case of the sun), the length of time during which the moon is above the horizon (also connoted more loosely by the term *solstitium*). These facts though really connected, may be viewed independently, and so it is in this passage. Cic. mentions, as a new idea, that we have in the moon's orbit an analogue to the longest and shortest day. The **solstitii similitudo** is the 'lunistice', thus defined in the *Imperial Dictionary*, 'the furthest point of the moon's southing and northing in its monthly revolutions'. It is recognized by Arist. *Gen. An.* IV 2 ὁ μὲν γὰρ ἥλιος ἐν ὅλῳ τῷ ἐνιαυτῷ ποιεῖ χειμῶνα καὶ θέρος, ἡ δὲ σελήνη ἐν τῷ μηνί· τοῦτο δ' οὐ διὰ τὰς τροπὰς, ἀλλὰ τὸ μὲν αὐξανομένου συμβαίνει τοῦ φωτὸς, τὸ δὲ φθίνοντος. In June 1881 the moon's *solstitium* was on the 24th, the lunar day consisting of 16 h. 40 m.,

but the five days from the 23rd to the 27th were all more than 16 hours, whereas the ordinary rate of change is 1 hour per day. Again the *bruma* was on the 11th, the moon rising that day at 7. 42 p.m. and setting at 2. 41 a.m., being thus above the horizon for only 6 h. 59 m., but the four days from the 10th to the 13th varied less than 30 m. from this.

**multaque ab ea manant et fluunt**: on the influence of the moon cf. above § 19 and § 119 below, and the chapter on Lunar Influences in Lardner's *Museum* I pp. 113—128. I give the substance of one paragraph from the latter: 'According to popular opinions and traditions, which have prevailed among mankind in almost all countries and throughout all ages, our satellite is responsible for a vast variety of influences on the organized world. The circulation of the sap in vegetables, the qualities of grain, the goodness of the vintage are severally laid to its account. It presides over human maladies, nay the very marrow of our bones and the weight of our bodies suffer increase or diminution under its influence. Nor is this limited to mere physical and organic effects; it extends its sway into the region of intellectual phenomena.' Cic. while denying or minimizing the influence of the moon on the birth of children *Div.* II 95, 97, grants this influence in regard to plants and animals, *Div.* II 33 *ostreis et conchyliis omnibus contingere, ut cum luna crescant pariter, pariterque decrescant; arboresque ut hiemali tempore, cum luna simul senescentes, quia tum exsiccatae sint, tempestive caedi putentur;* Aristotle asserts it more generally, *Gen. An.* IV 10 ἡ σελήνη συμβάλλεται εἰς πάσας τὰς γενέσεις καὶ τελειώσεις, and he applies this to the birth of animals (ib. IV 2); and Pliny *N. H.* II 101 after giving instances of the power of the moon, such as the tides, and the fact that *omnia plenilunio maria purgantur...nullum animal nisi aestu recedente exspirare*, proceeds *quo vera conjectatio exsistit haud frustra spiritus sidus lunam existimari. Hoc esse quod terras saturet, accedensque corpora impleat, abscedens inaniat: ideo cum incremento ejus augeri conchylia et maxime spiritum sentire quibus sanguis non sit. Sed et sanguinem hominum etiam cum lumine ejus augeri ac minui; frondes quoque ac pabula, ut suo loco dicetur* (cf. XVI 39, XVIII 75, 79), *sentire, in omnia eadem penetrante vi;* cf. Seneca *Benef.* IV 23 *num dubium est quin hoc humani generis domicilium circuitus solis ac lunae vicibus suis temperet? quin alterius calore alantur corpora, terrae relaxentur, immodici umores comprimantur, alligantis omnia hiemis tristitia frangatur; alterius tepore efficaci et penetrabili rigetur maturitas frugum? quin ad hujus cursum fecunditas humana respondeat?* Gellius has a chapter (XX 8) headed *De iis quae habere* συμπάθειαν *videntur cum luna augescente ac senescente.* Cic. is no doubt following here the same authority as Sext. Emp. IX 79, κατὰ γὰρ τὰς τῆς σελήνης αὐξήσεις καὶ φθίσεις πολλὰ τῶν τε ἐπιγείων ζῴων καὶ θαλασσίων φθίνει τε καὶ αὔξεται, where Fabr. refers to Allatius on the *Hexaemeron* of Eustathius, cf. Plut. *Fac. in Orb. L.* p. 939 F., *Qu. Conv.* p. 658 F., *Is. et Os.* p. 367, Macrob. *Sat.* VII 16 §§ 16—32, Ambr. *Hex.* IV 7, Philo *Prov.* II 76, Germanicus *Schol.* p. 197 Breysig. These ideas as to the moon's influence may be traced to the sup-

posed connexion between the dew and the moon,—Alcman called the Dew daughter of Zeus and Selene,—and to the reckoning of the time of pregnancy by moons, *cum hoc ergo propter hoc.*

**manant et fluunt**: so Plutarch *Mor.* p. 658 contrasts the dry efflux (*ῥεύματα*) of the sun with the moist efflux of the moon.

**alantur**: Consecutive Subjunctive. Note that here, as in § 28, the Mood of the Relative Clause defining the subject is unaffected by its Subjunctival subordination.

B b (3). *The divine activity shown in the orderly movements of the planets* §§ 51—54.

Ch. XX § 51. **falso vocantur errantes**: so *Div.* I 17 (*planetae*) *quas verbo et falsis Graiorum vocibus errant, re vera certo lapsu spatioque feruntur; Tusc.* I 62 *astra non re sed vocabulo errantia;* Plato *Leg.* VII 821 *καταψευδόμεθα Ἕλληνες πάντες μεγάλων θεῶν, Ἡλίου τε ἅμα καὶ Σελήνης...ἐπονομάζοντες πλανήτας εἶναι...πᾶν δὲ τοὐναντίον ἔχει τούτων· τὴν αὐτὴν γὰρ αὐτῶν ὁδὸν ἑκάστον καὶ οὐ πολλὰς ἀλλὰ μίαν ἀεὶ κύκλῳ διεξέρχεται, φαίνεται δὲ πολλὰς φερόμενον*, Plin. *N. H.* II 6.

**quinque**: so Milton 'and ye five other wandering stars that move in mystic dance'. Sometimes the sun and moon are included so as to make up the number seven, as in § 68 *septem vagantibus* and Cleomedes I 3 *τὰ δὲ πλανώμενα ἄδηλον μὲν εἰ καὶ πλείω ἐστίν, ἑπτὰ δὲ ὑπὸ τὴν ἡμετέραν γνῶσιν ἐλήλυθεν.* Seneca prophesies (*N. Q.* VII 13) that many more planets will be discovered.

**in omni aeternitate**: so in § 43, cf. § 28 *in tanta diuturnitate* n. and Dumesnil on *Leg.* I 8.

**progressus et regressus**: 'direct and retrograde motions', cf. Herschel *Astron.* ch. IX § 457 foll. 'the apparent movements of the planets are much more irregular than those of the sun or moon....Sometimes they advance rapidly, then relax in their apparent speed, come to a momentary stop, and then actually reverse their former motions, and run back upon their former course with a rapidity at first increasing, then diminishing, till the retrograde movement ceases altogether. Another *station*, or moment of apparent rest, now takes place; after which the movement is again reversed and resumes its original direction. On the whole however the amount of direct motion more than compensates the retrograde; and by the excess of the former over the latter, the gradual advance of the planet from west to east is maintained'. It is then shown by diagrams that this irregularity arises partly from these evolutions being seen by a spectator from the earth in section, and therefore foreshortened, and partly from the fact that the earth is being carried round the sun on her own orbit at a different rate from that of the planet under observation. See below § 103, *Tusc.* I 62, Seneca *N. Q.* VII 25 *harum quinque stellarum...quae alio atque alio occurrentes loco curiosos nos esse cogunt, qui matutini vespertinique ortus sint, quae*

*stationes, quando in rectum ferantur, quare agantur retro, modo coepimus scire. Utrum emergeret Jupiter, an occideret, an retrogradus esset, ante paucos annos didicimus.*

**occultantur**: at the time of their conjunction with the sun.

**recedunt**: at the time of their eastward or westward elongation.

**antecedunt—subsequuntur**: 'when Venus and Mercury have receded from the sun eastward to their respective distances, they remain for a time, as it were, immovable with respect to it, and are carried along with it in the ecliptic with a motion equal to its own; but presently they begin to approach it, or, which comes to the same, their motion in longitude diminishes, and the sun gains upon them....Then for a time they are not seen at all...(on their re-appearance) their motion is rapidly retrograde, until they reach their greatest western elongation, when the motion again becomes direct, and they acquire sufficient speed to commence overtaking the sun again', Herschel § 467.

**magnum annum**: *R. P.* VI 22 *cum autem ad idem, unde semel profecta sunt, cuncta astra redierint eandemque totius caeli discriptionem longis intervallis rettulerint, tum ille vere vertens annus appellari potest, in quo vix dicere audeo quam multa hominum saecla teneantur; Hort.* fr. 26 *is est magnus et verus annus quo eadem positio caeli siderumque, quae cum maxime est, rursum exsistat, isque annus horum quos nos vocamus annorum duodecim milia nongentos quinquaginta quattuor complectitur; Fin.* II 102; *Tim.* c. 9; Serv. ad *Aen.* III 284 (given as *frag.* 5 at the end of *N. D.* III) *Tullius in libris de Natura Deorum tria milia annorum dixit magnum annum tenere;* Censorinus 18 *est praeterea annus quem Aristoteles maximum potius quam magnum appellat, quem solis et lunae vagarumque quinque stellarum orbes conficiunt, cum ad idem signum, ubi quondam simul fuerunt, una referuntur; cujus anni hiemps summa est cataclysmos, quam nostri diluvionem vocant, aestas autem ecpyrosis, quod est mundi incendium.* The passage referred to by Cens. is not to be found in the existing works of Arist., probably it may have been in the dialogue *de Philosophia* from which so much of C.'s argument is borrowed (cf. Bywater in *J. of Philology* l. c.): we do find however (*Meteor.* I 14 § 20) a reference to a periodical deluge, *γίνεται διὰ χρόνων εἱμαρμένων, οἷον ἐν ταῖς κατ' ἐνιαυτὸν ὥραις χειμών, οὕτω περιόδου τινὸς μεγάλης μέγας χειμὼν καὶ ὑπερβολὴ ὄμβρων.* Probably the conception of a Cosmic Year was first introduced among the Greeks by the Pythagoreans (Zeller I pp. 397, 410); it is also attributed to Heraclitus (Zeller I 640), but the earliest notice of it occurs in Plat. *Tim.* 39 *ὅ γε τέλεος ἀριθμὸς χρόνου τὸν τέλεον ἐνιαυτὸν πληροῖ τότε, ὅταν ἁπασῶν τῶν ὄκτω περιόδων τὰ πρὸς ἄλληλα ξυμπερανθέντα τάχη σχῇ κεφαλὴν ἐκ τοῦ ταὐτοῦ καὶ ὁμοίως ἰόντος ἀναμετρηθέντα κύκλῳ*, a period of 10,000 years (Zeller II p. 264). Other calculations of the length of the Great Year are given in Censor. l. c., *Plac. Phil.* II 32 (Diels p. 363), Macrob. *S. Sc.* II 11, Sextus Emp. V 105, where Fabricius refers to Thomasius *De Anno Magno* contained in his treatise *De Stoica Mundi Exustione*,

cf. Schaubach *Gesch. d. Astron.* pp. 196 foll. 504 foll. The scientific conception of an astronomical period, analogous to the Metonic cycle amongst the Greeks, to the Sothiac or Canicular period among the Egyptians, and to the Julian period among ourselves, was mixed up, especially by Pythagoreans and Stoics, with mystical ideas of a cyclical regeneration (τὴν περιοδικὴν τῶν ὅλων παλιγγενεσίαν Anton. XI 1, where see Gataker), such as that of which Virgil speaks *Magnus ab integro saeclorum nascitur ordo;* cf. Nemesius c. 38 οἱ δὲ Στωϊκοί φασιν ἀποκαθισταμένους τοὺς πλανήτας εἰς τὸ αὐτὸ σημεῖον κατά τε μῆκος καὶ πλάτος ἔνθα τὴν ἀρχὴν ἕκαστος ἦν, ὅτε τὸ πρῶτον ὁ κόσμος συνέστη, ἐν ῥηταῖς χρόνων περιόδοις ἐκπύρωσιν καὶ φθορὰν τῶν ὄντων ἀπεργάζεσθαι καὶ πάλιν ἐξ ὑπαρχῆς εἰς τὸ αὐτὸ τὸν κόσμον ἀποκαθίστασθαι, and that then the whole series of past history is reproduced; also Seneca *N. Q.* III 29, Orig. *Cels.* V 21, Zeller IV p. 154 foll., Lewis *Astr.* p. 282 foll., and my *Sketch of Anc. Phil.* pp. 173, 174. It is worthy of note that the writers of the N. T. have borrowed from the Stoics the terms παλιγγενεσία and ἀποκατάστασις. The idea of a Great Year is also found among the Etruscans (see Preller *R. M.* p. 472 foll.) and the Iranians (Döllinger *Gentile and Jew*, I p. 394).

**nominaverunt**: 'an abbreviation for *constituerunt quem nominaverunt;* cf. *Leg.* I 24 *ex quo vere vel agnatio nobis cum caelestibus vel genus vel stirps appellari potest*, for *ex quo exstitit quae appellari potest; Invent.* IV 27 *ex quo in aliis anxietas, in aliis iracundia dicitur*, for *ex quo exsistit quae dicitur'*, Sch. who also refers to Madv. *Em. Liv.* p. 367. Other exx. of this pregnant force are *Leg.* II 8 *ex quo illa lex...recte est laudata* for *derivata et laudata; Fin.* III 63 *illa quae in concha patula pinna dicitur* for *habitat et pinna dicitur;* [Virg. *Aen.* VI 106 *hic inferni janua regis dicitur*, Schäfer on Greg. Cor. p. 986. J. E. B. M.]. See above I 83 *laudamus Vulcanum* n. and below § 109, where I read *quem claro perhibent Ophiuchum lumine Graii.*

**ad eandem inter se comparationem** := ὁ αὐτὸς τῶν ἀστέρων συσχηματισμός Sext. V 105, cf. *Tim.* c. 4 *quae Graece* ἀναλογία, *Latine...comparatio proportiove dici potest*, and c. 5 *ita contigit ut inter ignem atque terram aquam deus animamque poneret eaque inter se compararet et proportione conjungeret.* Translate 'when, after completing their several courses, they return to the same relative positions'.

§ 52. **Saturni stella**: the first Greek writing in which we find the names of the five planets is the *Epinomis* (p. 987) written by a disciple of Plato; he says 'they have no proper names of their own, but have received their appellations from the Gods (ἐπωνυμίαν εἰλήφασι θεῶν)', which seems to show that the descriptive Greek names given by Cic. were of later origin. Plato himself (*Tim.* 36, *Rep.* X 616) only mentions Ἑωσφόρον καὶ τὸν ἱερὸν Ἑρμοῦ; Aristotle *Met.* XII 8 gives the following names Ἀφροδίτης, Ἑρμοῦ, Διός, Κρόνου, to which he adds Ἄρεος (*Cael.* II 12), cf. also *Meteorol.* I 6. Hare in his Art. on *The names of the Days* (*Phil. Mus.* I 71) says 'that these names were not of common use in the time of Euripides may

fairly be inferred from their never occurring in any of his tragedies; though, as the author of the argument prefixed to the *Rhesus* observes, he was πολυπράγμων περὶ τὰ μετάρσια; and though, if he had been acquainted with them, he would assuredly have introduced them into the description of the πέπλος in the *Ion* 1148—1158. There however we only find Ἕσπερος, Πλείας, Ὠρίων, Ἄρκτος, Ὑάδες, and Ἕως φωσφόρος'. In the pseudo-Aristotelian treatise *De Mundo* 'we find (c. 2) an arrangement of the whole system, along with a great variety of names: φαίνων, φαέθων, πυρόεις and στίλβων occur here, I believe, for the first time: perhaps they were given by Eudoxus, who, Seneca says (*N. Q.* VII 3), *primus ab Aegypto quinque siderum motus in Graeciam transtulit.* We are likewise told that the star of Mars was also termed the star of Hercules, that of Mercury by some the star of Apollo, that of Venus by some the star of Juno', ibid. The descriptive names are fairly appropriate (cf. Plin. *H. N.* II 16 § 79); Saturn is the shining, Jupiter the blazing (φαέθων only used of the sun in its original sense), Mars the red and fiery (cf. the Stoic etymology for Ἄρης=ἀέριον πῦρ, on which see Lydus *de Mens.* 18 and other passages quoted by Flack *Glossen z. Hesiod. Theol.* p. 80 foll.), Mercury the twinkling (Simplicius, ap. Brandis *Schol.* p. 495 b, notices the twinkling of Mercury in connexion with its name; cf. Arist. *Cael.* II 8 on the reasons for the twinkling of the stars as opposed to the planets).

**a terra abest plurimum**: according to Macrobius *S. Scip.* I 20, the order of the planets, after the furthest three, Saturn, Jupiter, Mars, as to which there was general agreement, was differently determined by the Egyptians and Chaldeans. The former, followed by Pythagoras (Zeller I 395), Plato (*Tim.* 38, *Rep.* X 616), Aristotle (*Met.* XI 8, cf. Krische *Forschungen* p. 290), Chrysippus (Stob. *Ecl.* p. 448), made Venus and Mercury 4th and 5th, the Sun 6th, then the Moon, then the Earth. The latter, followed by Archimedes, Geminus, Cleomedes, Vitruvius, Ptolemaeus, Hyginus (*Grom.* p. 184 L.), Pliny (*H. N.* II 32—40), and Cic. here, placed the Sun above Venus and Mercury. There were great doubts as to the relative position of these two. Cic. himself, who in this passage places Mercury furthest from the earth, follows another authority in *Div.* II 91, where we read *docet ratio mathematicorum quanta humilitate luna feratur terram paene contingens, quantum absit a proxima Mercurii stella, multo autem longius a Veneris, deinde alio intervallo distet a sole.* In *N. D.* II 119 we have a third view, that these two planets revolve, not immediately round the earth, but around the sun, *duae soli oboediant*, as in *R. P.* VI 17 *hunc (solem) ut comites consequuntur Veneris alter, alter Mercurii cursus:* and Vitruv. IX 1 *Mercurii et Veneris stellae circum solis radios, uti centrum, itineribus eum coronantes regressus retrorsus et retardationes faciunt;* Marcianus Capella VIII 25 *Venus et Mercurius non ambiunt*
us was one of the first to propound the doctrine
the sun, Zeller II 885. Macrobius *S. Sc.* I 19
r of opinions as to the relative positions of

Mercury and Venus *horum vero trium sibi proximorum, Veneris, Mercurii et Solis, ordinem vicinia confudit*, cf. Lewis *Astron.* p. 246.

**xxx fere annis**: these periodical times seem to have been brought from Egypt by Eudoxus (Simplic. *Schol. Arist.* p. 499 Br., Seneca *N. Q.* VII 3) whom C. calls *in astrologia facile princeps* (*Div.* II 87). They agree with those given by Pliny (*N. H.* II c. 6), Cleomedes (I 3), Achilles Tatius, Geminus, and the author of the *Plac. Phil.* (II 32), except that Geminus assigns $2^y. 6^m.$, and Cleomedes $2^y. 5^m.$ to Mars, and that Pliny assigns 348 days to Venus, and 339 to Mercury. They are compared below with the times given by Vitruvius IX 1 and by Herschel.

| Eudoxus. | | Vitr. | Herschel. |
|---|---|---|---|
| Mercury | 1 year. | 360 days. | $87^d. 23^h.$ |
| Venus | 1 „ | 485 „ | $224^d. 16^h.$ |
| Mars | 2 „ | $1^y. 318^d.$ | $1^y. 321^d. 23^h.$ |
| Jupiter | 12 „ | $11^y. 323^d.$ | $11^y. 315^d. 14^h.$ |
| Saturn | 30 „ | $29^y. 160^d.$ | $29^y. 174^d. 1^h.$ |

**se aperiendo**: just above we have the Passive with Middle force, also in *Off.* I 129 *corporis partes aperiuntur.*

**sempiternis saeclorum aetatibus**: 'in the never ending periods of eternity'. I have not met with this phrase elsewhere.

§ 53. **proximum inferiorem**: Heind. cites after Wopkens *Fam.* I 9 *quem proximis superioribus diebus acerrime oppugnasset; Orator* 216 *non loquor de uno pede extremo, adjungo proximum superiorem...saepe etiam tertium; N. D.* III 54 *proximae* (al. *proxime*) *superiores;* Tac. *Ann.* I 77 *proximo superiore anno.*

**quae stella Martis appellatur**: C. has carelessly inverted the clauses. We should have expected *stella Martis quae πυρόεις appellatur.*

**sex diebus minus**: 'less (than two years) by six days'. I have not been able to find any authority for this statement of C.'s. For the construction of *minus* see Roby § 1273.

**anno vertente**: 'in the course of the year' lit. 'the revolving year', cf. *Quint.* 40 *sex quidem mensibus profecto; anno vertente sine controversia;* Vitr. IX 1 § 6 *sol perficit spatium vertentis anni; ibid. mense vertente;* Heind. on Hor. *Sat.* I 1. 36.

**signiferum orbem**: cf. Cic. *Arat.* 317 *zodiacum hunc Graeci vocitant, nostrique Latini orbem signiferum perhibebunt nomine vero, nam gerit hic volvens bis sex ardentia signa;* so *Div.* II 89, Lucr. V 691. In *Div.* I 17 it is called *signorum sedes*, in V. *Geo.* I 239 *signorum ordo*, in Lucr. V 712 *signorum orbis; ζῳδίων κύκλος* in Aristotle and Aratus. [*Signifer* is used as a substantive, Sen. *N. Q.* VII 18 and 24, Plin. *N. H.* II §§ 30, 38, 81, Avien. *Arat.* 1053, Claud. *Epigr.* 18. 9. J. E. B. M.]

**unius signi intervallo**: the path of the sun is divided into twelve Signs, one for each month, and each Sign is again divided into thirty parts, through one of which the sun travels in the course of each day (Geminus

in *Uranologion* p. 2). Ptolemy uses the word *μοῖρα* for a degree, Manilius *gradus* or *pars*. Cleomedes gives the elevation of the star Canopus as *τέταρτον ζῳδίου, ὅ ἐστι τεσσερακοστὸν ὄγδοον τοῦ ζῳδιακοῦ.* Pliny *N. H.* II 8 states on the authority of Timaeus and Sosigenes that Mercury is never more than 23° from the Sun; Herschel gives 28°.48 as his extreme elongation.

**infima est**: the mean distances are given by Herschel as follows, from the sun to Mercury about 36 millions of miles, to Venus about 68 millions, to the earth 95 millions; (later calculations give for the earth about 93 millions).

**Φωσφόρος—Ἕσπερος**: it was a question whether Pythagoras or Parmenides was the first to discover their identity, cf. Diog. L. VIII 14, IX 23, Plin. *N. H.* VIII 37, *Epinomis* 987. In Homer they are still distinct, see *Il.* XXIII 226, *Od.* XIII 93 of the morning-star *ἑωσφόρος*; *Il.* XXII 318 of the evening-star, *ἕσπερος, ὃς κάλλιστος ἐν οὐρανῷ ἵσταται ἀστήρ.* The Latin equivalent to Ἕσπερος is *Vesper* or *Vesperugo*, Catullus uses *noctifer*, but Varro *R. R.* III 5 § 17 speaks of *Lucifer* and *Hesperus*, which perhaps may suggest that Cic. here treats it as a word common to both languages, and that it should therefore be printed in Latin letters.

**latitudinem et longitudinem**: it traverses the zodiac with a zigzag movement.

**duorum signorum intervallo**: cf. Plin. *N. H.* II 8 *ab sole nunquam absistens partibus sex et quadraginta longius, ut Timaeo placet*, and Herschel *Astr.* § 467 "Venus extends her excursions on either side the sun to about 47°".

Ch. XXI § 54. [**hanc in stellis constantiam**: 'such a persistency in the stars, such a perfect adjustment of times throughout all eternity notwithstanding such a variety of courses (*Gr.* § 1240) I cannot understand without supposing mind, calculation, purpose'. R.]

**sine mente**: sc. *οὖσαν*, not adverbial with *intellegere* but adjectival with *constantiam*, cf. *Orat.* I 105 *non loquacitatem sine usu requirent*, where Wilkins cites *Part. Orat.* 48 *illa quae sine arte* (=*ἄτεχνα*) *appellantur*, and Ov. *Met.* I 20 *pugnabant mollia cum duris, sine pondere habentia pondus*, also *N. D.* I 45 *metus a vi* n. and above § 14 *praeter naturam portentis*. For the use of **intellegere** cf. I 73, III 38.

**in deorum numero reponere**: cf. *in deorum numero refert* I 29 n., 2 *Verr.* III 210 *tanta auctoritate sunt ut in illo antiquorum et clarissimorum hominum numero reponantur;* but we find the Acc. in *Opt. Gen. Orat.* 17 *Isocratem hunc in numerum non repono*, *Invent.* I 26 § 39 *in fabularum numerum rep.*, ib. 51 § 97 *partium in numerum rep.*, (in the last two passages the readings vary; I have given Weidner's). There is the same variation in Livy: we find the Acc. in XXXI 13 § 1, and XXXIX 19 § 7 *pecuniam in thensauros reponi;* but c. 18 § 15 *reposita pecunia in thensauris fuerit*, c. 21 § 4 *pecuniam in thensauris reposuerunt.* So in *N. D.* III

23 and 51 all MSS have the Abl. but in § 47 the Acc. The passage from *hanc igitur—reponere* is quoted by Lactant. II 5.

B b (4). ***The divine activity shown in the rational and voluntary movements of the fixed stars and of the heaven itself*** §§ 54—56.

**inerrantes**: Gr. *ἀπλανής*, see n. on *invocatae* I 108, and *incognita* below § 73.

[**quarum est cotidiana conveniens constansque conversio**: the alliteration might be preserved by translating 'regular revolution daily and duly recurring'. R. Cf. above § 19.]

**nec habent aetherios cursus neque caelo inhaerentes**: two explanations of the apparent movement of the fixed stars were given by the older philosophers (1) that the fixed stars were fastened like nails in a solid heaven or sphere and of course revolved with it, *ἥλων δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ*, as is said of Anaximenes *Plac. Phil.* II 14, and Empedocles, ib. 13; Anaximander, Pythagoras and Parmenides preferred to speak of the stars being attached to spheres: (2) that they were light bodies borne along by *αἰθέριος δῖνος* (Arist. *Nub.* 379); so Xenophanes, Heraclitus, Anaxagoras, Democritus. Aristotle took the former view *λείπεται τοὺς μὲν κύκλους κινεῖσθαι, τὰ δὲ ἄστρα ἠρεμεῖν καὶ ἐνδεδεμένα τοῖς κύκλοις κινεῖσθαι* *Cael.* II 8; in *Met.* XII 7 foll. he enumerates 55 spheres, in addition to that of the fixed stars, which were required to explain the movements of the sun, moon and planets; both the stars and the spheres are composed of ether; see Lewis *Astr.* p. 161 foll.; Zeller III p. 453. It would seem that Balbus here condemns both explanations, and would attribute the movement of the fixed stars, as well as of the planets, to their own free will: so Manutius ap. Lescalop. (not in Var. ed.) *negant Stoici stellas aetheri* (rather *ab aethere actas*) *sive caelo affixas esse, quod animantes eas esse opinantur et motu voluntario ferri.* **aetherius cursus** will not then mean 'the path of the stars through the ether', for this the Stoics admitted, see below § 117 *in aethere astra volvuntur;* but 'a movement caused by ether', going by ether, as we talk of going by steam; cf. below *non est aetheris ea natura ut contorqueat*, and, for the expression, such phrases as *mola asinaria, aquaria* worked by an ass or by water. The argument however is not very clear: two theories having been put forward and declared inadmissible, why should not this be shown in the case of the second (*caelo inhaerentes*) as well as the first (*aetherios cursus*)? and if, as appears below, the fixed stars have their sphere, how does the Stoic view differ after all from that of Aristotle? All that is there asserted is that the motion of the sphere is independent of the surrounding ether, but that is admitted by Arist. at all events in the case of the planetary spheres. One expects the assertion that each fixed star moves independently and yet in such harmony as to give the appearance of a great all-embracing sphere. Apparently Chrysippus denied their independent motion (Stob. *Ecl.* I 446 *ἐν τῷ αἰθέρι τὰ ἄστρα καθίδρυται*, and shortly after-

wards τετάχθαι τὰ ἀπλανῆ ἐπὶ μιᾶς ἐπιφανείας, ὥσπερ καὶ ὁρᾶται); and so Cic. *R. P.* VI 17 *novem tibi orbibus vel potius globis conexa sunt omnia, quorum unus caelestis est extimus, qui reliquos omnes complectitur, summus ipse deus arcens et continens ceteros, in quo sunt infixi illi qui volvuntur stellarum cursus sempiterni*, *Tusc.* V 69 *sideraque viderit innumerabilia caelo inhaerentia cum ejus ipsius motu congruere certis infixa sedibus.* We may compare an obscure passage in Chalcidius *Tim.* c. 83, *Aristoteles contra opinionem omnium, neque quiescente corpore aetherio ferri stellas, veluti soluto ac libero motu* (the Stoic view) *nec secundum universae rei motum.* Possibly we should read *circos* here for *cursus*, answering to the κύκλοι of Aristotle. Manilius I 282 has *sidereus orbis aetherios rotat cursus*, where *aeth.* has its common sense.

**aequabili**: 'uniform'.

§ 55. **cum admirabili constantia**: for *cum* see Index and § 101 *cum admirabilitate maxima.* This insistence on the harmonious movement of the stars seems to show that each star was free to move differently; otherwise, if they were all fastened on a sphere, there would have been nothing wonderful in it, cf. below § 60 *ita feruntur ut ad omnia conservanda consensisse videantur.*

§ 56. **fortuna—constantia**: 'in the heavens there is nothing by chance, nothing at random, no wandering nor illusion, but the perfection of order, reality, calculation, consistency'. The contrasted pairs are *fortuna* )( *constantia; temeritas* )( *ratio; vanitas* )( *veritas*, (cf. *Tusc.* III 2 *ita variis imbuimur erroribus ut vanitati veritas cedat*, *Acad.* II 34 *cum sit incertum vere inaniterne moveatur*); *erratio* )( *ordo;* cf. above § 43.

**contraque**: for the adversative force of *que* see I 75 *sitque perlucida* n.

**omnis ordo**: for the qualitative force of *omnis* see below § 58 *omnis ornatus*, and I 37 *divinitatem omnem;* and cf. Wetstein on Jas. I 2 πᾶσαν χαρὰν ἡγήσασθε.

**infra lunam**: the moon was regarded as the limit between the celestial region in which there was no change, and the sublunary sphere, where chance and evil ruled. Thus Ocellus Lucanus c. 2 ἰσθμὸς γάρ ἐστιν ἀθανασίας καὶ γενέσεως ὁ περὶ τὴν σελήνην δρόμος· τὸ μὲν ἄνωθεν ὑπὲρ ταύτης πᾶν... θεῶν κατέχει γένος, τὸ δ' ὑποκάτω σελήνης, νείκους καὶ φύσεως, and Chalcidius *Tim.* c. 75 *at vero sub luna usque ad nos omne genus motuum, omne etiam mutationum, prorsus ut est in vetere versu Naevii, 'exuviae, rabies, furiarum examina mille'. Namque generatio et item mors in isto loco; incrementa quoque et imminutiones.* The belief was as old as Philolaus, see Boeckh p. 167, Zeller I 409 and Stob. *Ecl.* I 488 there quoted, τὸ μὲν οὖν ἀνωτάτω μέρος τοῦ περιέχοντος, ἐν ᾧ τὴν εἰλικρίνειαν εἶναι τῶν στοιχείων, Ὄλυμπον καλεῖ, τὰ δὲ ὑπὸ τὴν Ὀλύμπου φορὰν, ἐν ᾧ τοὺς πέντε πλανήτας μεθ' ἡλίου καὶ σελήνης τετάχθαι, κόσμον, τὸ δ' ὑπὸ τούτοις ὑποσέληνόν τε καὶ περίγειον μέρος, ἐν ᾧ τὰ τῆς φιλομεταβόλου γενέσεως, οὐρανόν. καὶ περὶ μὲν τὰ τεταγμένα τῶν μετεώρων γίγνεσθαι τὴν σοφίαν, περὶ δὲ τὰ γενόμενα τῆς ἀταξίας τὴν ἀρετὴν, τελείαν μὲν ἐκείνην, ἀτελῆ δὲ ταύτην (compare above § 34 of the

*quartus gradus*). Hippolytus (*Ref. Haer.* I 4) says the same of Heraclitus and Empedocles πάντα τὸν καθ' ἡμᾶς τόπον κακῶν μεστὸν εἶναι καὶ μέχρι μὲν σελήνης τὰ κακὰ φθάνειν ἐκ τοῦ περὶ γῆν τόπου ταθέντα, περαιτέρω δὲ μὴ χωρεῖν, ἅτε καθαρωτέρου τοῦ ὑπὲρ τὴν σελήνην παντὸς ὄντος τόπου. Plato scorns the idea that the stars, being visible and possessed of bodily form, can themselves be eternal and unchangeable (*Rep.* VII 530), but he seems to allude to this theory in *Theaet.* 176 A ὑπεναντίον γάρ τι τῷ ἀγαθῷ ἀεὶ εἶναι ἀνάγκη· οὔτ' ἐν θεοῖς αὐτὰ ἱδρύσθαι, τὴν δὲ θνητὴν φύσιν καὶ τόνδε τὸν τόπον περιπολεῖ ἐξ ἀνάγκης; it appears in more definite form in Aristotle *Met.* IV 5 p. 1010 a, ὁ γὰρ περὶ ἡμᾶς τοῦ αἰσθητοῦ τόπος ἐν φθορᾷ καὶ γενέσει διατελεῖ μόνος ὤν· ἀλλ' οὗτος οὐθὲν, ὡς εἰπεῖν, μόριον τοῦ παντός ἐστιν, *Cael.* I 2 p. 269 ἔστι τι παρὰ τὰ σώματα τὰ δεῦρο καὶ περὶ ἡμᾶς ἕτερον κεχωρισμένον, τοσούτῳ τιμιωτέραν ἔχον τὴν φύσιν, ὅσῳπερ ἀφέστηκε τῶν ἐνταῦθα πλεῖον, ib. 3 εἴπερ τὸ κύκλῳ σῶμα (the ether) μήτ' αὔξησιν ἔχειν ἐνδέχεται μήτε φθίσιν, εὔλογον καὶ ἀναλλοίωτον εἶναι...συμβαίνει δὲ τοῦτο καὶ διὰ τῆς αἰσθήσεως ἱκανῶς, ὥς γε πρὸς ἀνθρωπίνην εἰπεῖν πίστιν· ἐν ἅπαντι γὰρ τῷ παρεληλυθότι χρόνῳ οὐθὲν φαίνεται μεταβεβληκὸς οὔτε καθ' ὅλον τὸν ἔσχατον οὐρανὸν οὔτε κατὰ μόριον αὐτοῦ τῶν οἰκείων οὐθέν, *Meteor.* I 1 'after general philosophy and the description of the upper region (astronomy) we proceed to what is called meteorology', ταῦτα δ' ἐστὶν ὅσα συμβαίνει κατὰ φύσιν μέν, ἀτακτοτέραν μέντοι τῆς τοῦ πρώτου στοιχείου (ether) περὶ τὸν γειτνιῶντα μάλιστα τόπον τῇ φορᾷ τῶν ἄστρων, e.g. the milky way, comets, meteors, winds, earthquakes, storms, lightning, (called by Ach. Tatius μετάρσια as opposed to μετέωρα, the heavenly bodies) *Part. An.* I 1 p. 641. Hence he is accused by early Christian writers of setting a limit to Divine Providence, μέχρι σελήνης ἡ πρόνοια Clem. Al. *Strom.* V 14 § 91, Epiphan. *adv. Haer.* III 31, Theodoret *Prov.* I p. 485 Sch. (some believe that God governs the universe, but only within certain limits) τῇ σελήνῃ περιορίζειν τὴν πρόνοιαν, τὸ δὲ λοιπὸν τοῦ κόσμου μέρος ὡς ἔτυχε φέρεσθαι. The same doctrine is asserted by Cic. *R. P.* VI 17 *in infimo orbe luna radiis solis accensa convertitur. Infra autem jam nihil est nisi mortale et caducum praeter animos munere deorum hominum generi datos; supra lunam sunt aeterna omnia;* cf. Varro ap. Aug. *C. D.* VII 6 *ab summo circuitu caeli ad circulum lunae aetherias animas esse astra ac stellas, eos caelestes deos non modo intellegi esse sed etiam videri; inter lunae vero gyrum et nimborum ac ventorum cacumina aereas esse animas, sed eas animo non oculo videri, et vocari heroas et lares et genios;* Lucan IX 6; Plut. *Is. et Osir.* c. 26 (of Xenocrates); Wetstein on *Eph.* II 2 'the prince of the power of the air'; Plin. *N. H.* II 38 *infra lunam haec sedes infinitum ex superiore natura aeris, infinitum et terreni halitus miscens utraque sorte confunditur. Hinc nubila, tonitrua et alia fulmina...hinc plurima mortalium mala et rerum naturae pugna secum: terrena in caelum tendentia deprimit siderum vis, eademque quae sponte non subeunt ad se trahit;* ibid. 21 *Posidonius non minus quadraginta stadiorum a terra altitudinem esse in qua nubila ac venti nubesque proveniant; inde purum liquidumque et imperturbatas lucis aerem: sed a turbido ad lunam vicies centum millia stadiorum;*

Macrob. *S. Sc.* I 11 § 6 *et immutabilem quidem mundi partem a sphaera quae ἀπλανής vocatur usque ad globi lunaris exordium, mutabilem vero a luna ad terras usque dixerunt; et vivere animas dum in immutabili parte consistunt, mori autem cum ad partem ceciderint permutationis capacem, atque ideo inter lunam terrasque locum mortis et inferorum vocari; ipsamque lunam vitae esse mortisque confinium et animas inde in terram fluentes mori, inde ad supera meantes in vitam reverti...a luna enim deorsum natura incipit caducorum;* Philo *Prov.* II 68. Seneca disputed some of these conclusions, *N. Q.* VII 22 *ego nostris non adsentior, non enim existimo cometen subitaneum ignem sed inter aeterna opera naturae; Provid.* 1 *ne illa quidem quae videntur confusa et incerta, pluvias dico nubesque et elisorum fulminum jactus et incendia ruptis montium verticibus effusa...et alia quae tumultuosa pars rerum circa terras movet, sine ratione, quamvis subita sint, accidunt.* Pliny (*N. H.* II 26) mentions an exception to the unchangeable order of the celestial region, 'Hipparchus discovered a new star, and was thence led to commit the impiety of numbering the stars, in order that future naturalists might have the means of knowing whether such a marvel were repeated'. Bacon *Cogit. de Nat. Rer.* (III 32 Spedding) has some interesting remarks on this opposition of the celestial and sublunary regions. He says '*neque caelo ea competit aeternitas quam fingunt, nec rursus terrae ea mutabilitas.* The apparent regularity of the former is owing to the distance from which we behold it. A spectator in the moon would suppose the earth equally free from change. Moreover new comets and new stars have appeared in the heavens'.

**ex qua conservatio omnium**: see the fine passage in Seneca *Benef.* VII 20 foll. on the benefits we receive from the regular movements of the heavenly bodies.

B c. *Divinity of nature shown* (1) *in its creative and artistic,* (2) *in its providential activity* §§ 57, 58.

§ 57. **principe investigandae veritatis**: for constr. cf. 7 *Philipp.* 9 *Firmani principes pecuniae pollicendae fuerunt.* Zeno is called *inventor et princeps Stoicorum, Acad.* II 131.

Ch. XXII **ita definit ut dicat**: cf. *Off.* I 96 *eam sic definiunt ut id decorum velint esse quod* &c.

**ignem artificiosum**: Diog. VII 156 gives the original τὴν φύσιν εἶναι πῦρ τεχνικὸν ὁδῷ βαδίζον εἰς γένεσιν, see *Plac. Phil.* I 7, *N. D.* III 27 *artificiose ambulantis,* and n. on *quarta pars mundi* above § 27; also Hirzel II p. 220, and Heracl. fr. 69 Byw. ὁδὸς ἄνω κάτω μία. Sch. compares the πῦρ πάντεχνον of Aesch. *Prom.* 7; we may also compare the *ignis sapiens* of Minucius 35, and Clem. Al. *Strom.* VII 6 § 34 φαμὲν δὲ ἡμεῖς ἁγιάζειν τὸ πῦρ τὰς ἁμαρτωλοὺς ψυχάς, πῦρ οὐ τὸ παμφάγον καὶ βάναυσον, ἀλλὰ τὸ φρόνιμον λέγοντες.

**via**: see below § 81, and Cleanthes' definition of Art, *ars est potestas*

*via, id est ordine, efficiens* Quintil. II 17 § 41. We often find it coupled with *ratione* as in *Orator* 11, 116, *Fin.* I 29. It is used colloquially Ter. *Andr.* 443 *rem reputavit via;* see Roby § 1236. [See on ὁδῷ Cobet *Collectan.* 514, Musonius in Stob. *Flor.* LXVII 8 (IV p. 87 M). J. E. B. M.]

**artis proprium creare**: Arist. *Eth.* VI 4 § 4 τέχνη πᾶσα περὶ γένεσιν.

**multo artificiosius naturam efficere**: Arist. *Part. An.* I 1 p. 639 b ἀρχὴ ὁ λόγος ὁμοίως ἔν τε τοῖς κατὰ τέχνην καὶ ἐν τοῖς φύσει συνεστηκόσιν...μᾶλλον δ' ἐστὶ τὸ οὗ ἕνεκα καὶ τὸ καλὸν ἐν τοῖς τῆς φύσεως ἔργοις ἢ ἐν τοῖς τῆς τέχνης, *Phys.* II 2 p. 194 ἡ τέχνη μιμεῖται τὴν φύσιν, *Meteorol.* IV 3 § 24, below § 83 *arte naturae vigent.*

**omnis natura**: 'nature in every department' contrasted with universal nature, which is not only *artificiosa* but *artifex:* cf. below § 141 *quis vero opifex praeter naturam, qua nihil potest esse callidius tantam sollertiam persequi potuisset?*, § 138, *Acad.* II 30, Val. Max. I 8 extr. 18 *omnis bonae malaeque materiae fecunda artifex rerum natura,* Seneca *Ep.* XC § 27 *artifex vitae philosophia,* Ov. *Met.* XV 218 *artifices natura manus admovit,* Plin. *N. H.* X 91 *naturae architectae vis;* Swainson cites ib. VI 35 (30), (it is no wonder that monsters were found in Ethiopia) *artifici ad formanda corpora effigiesque caelandas mobilitate ignea.*

**viam et sectam**: 'a prescribed line', cf. *Cael.* 17 *hanc sectam rationemque vitae re magis quam verbis secuti sumus.* L. and S. derive it from *seco* 'to cut', but it is so constantly joined with *sequor* by Cic. (e.g. *Flacc.* 104, *Rabir.* 22, *Fam.* XIII 4, *Brut.* 120) that there can be no doubt it is rightly connected with this word, or rather with its archaic form *seco* 'to follow', by Nettleship (*J. of Phil.* XI p. 107) who cites from Naevius *eorum sectam secuntur multi mortales,* and from Servius on *Aen.* X 107 (*quam quisque secat spem*), *secat, sequitur...unde et sectas dicimus habitus animorum et instituta philosophiae.*

§ 58. **artifex**: so Diog. L. VII 86 τεχνίτης ὁ λόγος τῆς ὁρμῆς.

**consultrix et provida**: so *consulo* and *provideo* are joined I 4 *a dis hominum vitae consuli et provideri, Q. Fr.* I 1 § 31 *ut consulas omnibus, ut provideas saluti.* **consultrix** appears to be ἅπ. λεγ.

**ut ceterae naturae—sic natura mundi**: Sch. treats this as an example of the comparison of opposites, like *Fin.* II 67 *ut nos ex annalium monumentis testes excitamus...sic in vestris disputationibus historia muta est,* and other passages cited by Madv. on *Fin.* I 3. It would then oppose the necessary growth and movement of plants, mentioned in § 33, to the voluntary movement of the universe mentioned in §§ 43 and 44 &c. But it is certainly awkward that it is immediately followed by a comparison of resemblance, *actiones sic adhibet ut nosmet ipsi;* besides the supposed opposition is far from clearly marked, and elsewhere we find an analogy suggested between the seeds of plants and the natural impulses which determine the course of life of sentient and rational creatures; thus Cleanthes ap. Stob. *Ecl.* I 372 ὥσπερ γὰρ ἑνός τινος τὰ μέρη πάντα

*φύεται ἐκ σπερμάτων ἐν τοῖς καθήκουσι χρόνοις, οὕτω καὶ τοῦ ὅλου τὰ μέρη, ὧν καὶ τὰ ζῷα καὶ τὰ φυτὰ ὄντα τυγχάνει, ἐν τοῖς καθήκουσι χρόνοις φύεται,* Seneca *N. Q.* III 29 *sive anima est mundus sive corpus natura gubernabile, ut arbores, ut sata, ab initio ejus usque ad exitum, quicquid facere, quicquid pati debeat, inclusum est. Ut in semine omnis futuri ratio hominis comprehensa est, et legem barbae et canorum nondum natus infans habet;...sic origo mundi...solem et lunam et vices siderum continuit;* Cic. *Fin.* III 23 *appetitus animi, quae ὁρμὴ vocatur, non ad quodvis genus vitae sed ad quandam formam vivendi videtur datus, itemque et ratio et perfecta ratio; Divin.* I 128 *ut in seminibus vis inest earum rerum quae ex iis progignuntur: sic in causis conditae sunt res futurae;* Seneca *Ep.* XC 29; Zeno ap. Varr. *L. L.* V 59 *animalium semen ignis, qui anima ac mens: qui caldor et caelo, quod hic innumerabiles ac immortales ignes.* The metaphor was often used in reference to the Cyclical Conflagration, when the universe was shut up into its seed, as it were, Philo *Inc. Mund.* 505 (Chrysippus holds) *τὸ ἀναστοιχειῶσαν τὴν διακόσμησιν εἰς αὐτὸ πῦρ τοῦ μέλλοντος ἀποτελεῖσθαι κόσμου σπέρμα εἶναι,* Plut. *Sto. Rep.* § 41, Diog. VII 136; cf. below §§ 81, 86, Heinze p. 107 foll. and Villoison in Osann's Corn. p. 465 foll. on the *λόγος σπερματικός.* Possibly we ought to put a stop after *mundi,* and read *omnesque.* [The argument seems to be as follows: art is shown by arrangement and purpose: all parts of nature show this and are therefore *artificiosa.* The art is as it were stored in the seed: the universe has no seed; but, just as each particular part has *sua semina,* and so far is self-contained, so the universe has its movements and feelings belonging to itself and not caused from without. R.] Heind. proposed to read *suis quaeque seminibus* instead of *suis sem. q.,* but we find the same order in § 127 *suis se armis quaeque defendant.*

**appetitiones**: cf. above § 34 and *Fin.* III 23, *Acad.* II 24, *Off.* I 101.

**πρόνοια**: see I 18 n.

**aptissimus sit ad permanendum**: self-preservation is the object of the first appetite, *Fin.* III 16 quoted on § 34; the 2nd is *ut natura expleatur* (ibid. V 25, 26, 27, 40); this involves the perfection of beauty both of body and mind (ib. 47, 48).

**omnis**: qualitative, as in § 56.

Ch. XXIII § 59. **nec cessantium**: cf. I 24, 45, 51, 101, *Fin.* II 41.

**molientium cum labore**: cf. I 22, 24, 51, 52 and III 92. On constr. cf. *cum maxima celeritate* below 97, 142, and see Index under *cum.*

**acres aut concretos umores colligant**: 'so as to contract a sharp or sluggish condition of the juices'. Cf. Plato *Tim.* 86 *πικροὶ καὶ χολώδεις χυμοί,* Cels. II 19 *aliae res boni suci sunt, aliae mali,...aliae facile in stomacho acescunt.* For **coll.** cf. *colligere frigus, sitim,* &c. We have *umorem colligens* in a different sense below § 101 and in Plin. *N. H.* XIX 26 *raphanos medici suadent ad colligenda acria viscerum.* **concr.** properly 'curdled' 'clogged', see n. on *concresceret* above § 26, and Celsus quoted in Georges' Lex. *si quid umoris intus concreverit.*

**monogrammos**: 'unsubstantial', lit. 'sketched in outline', cf. I 75 *adumbratorum* n., 123 *lineamentis dumtaxat extremis*, and 49. It is thus explained by Nonius p. 37 *monogr. dicti sunt homines macie pertenues ac decolores; tractum a pictura, quae prius quam coloribus corporatur, umbra fingitur* (this is the *pictura linearis* of Plin. *N. H.* XXXV 5). He quotes from Lucil. *vix vivo homini ac monogrammo.*

B d. *The name of God is given by the popular religion* (1) *to the benefits received from the Gods,* (2) *to personified virtues and passions* §§ 60, 61.

§ 60. **multae aliae naturae deorum**: not, I think, 'many other kinds of Gods', but 'many other divinities', cf. for the periphrastic use I 23, II 24, 136.

**tum illud**: answering to *tum autem res ipsa* below.

**a deo natum**: Dav. conjectured *datum* or *donatum.* Wopkens p. 87 compares § 62 below *utilitates gignebant, Leg.* III 30 *non vides a te id ipsum natum, Fin.* V 69 *oriuntur a suo cujusque genere* and *Off.* II 16 *nulla...pestis est quae non homini ab homine nascatur.* For general subject see I 38 and 118, where the same belief is attributed to Persaeus and Prodicus, and Zeller IV 316 foll. It is criticized below III 41, and in Sext. Emp. IX 39 there cited. .

**ut cum fruges**: elliptical for *ut nos facimus cum.* Sch. refers to Plut. *Is. et Os.* c. 70 *ὥσπερ ἡμεῖς τὸν ὠνούμενον βιβλία Πλάτωνος ὠνεῖσθαί φαμεν Πλάτωνα, καὶ Μένανδρον ὑποκρίνεσθαι τὸν τὰ Μενάνδρου ποιήματα ὑποτιθέμενον, οὕτως ἐκεῖνοι τοῖς τῶν θεῶν ὀνόμασι τὰ τῶν θεῶν δῶρα καὶ ποιήματα καλεῖν οὐκ ἐφείδοντο.* Plutarch warns his readers against confounding the Gods with their operations (ibid, c. 66 p. 377), *ὅπως φοβήσονται μὴ λάθωσιν εἰς πνεύματα καὶ ῥεύματα καὶ σπόρους καὶ ἀρότους καὶ πάθη γῆς καὶ μεταβολὰς ὡρῶν διαγράφοντες τὰ θεῖα καὶ διαλύοντες· ὥσπερ οἱ Διόνυσον τὸν οἶνον, Ἥφαιστον δὲ τὴν φλόγα, Περσεφόνην δέ φησί που Κλεάνθης τὸ διὰ τῶν καρπῶν φερόμενον καὶ φονευόμενον πνεῦμα· ποιητὴς δέ τις ἐπὶ τῶν θεριζόντων, τῆμος ὅτ' αἰζηοὶ Δημήτερα κωλοτομεῦσιν. Οὐδὲν γὰρ οὗτοι διαφέρουσι τῶν ἱστία καὶ κάλως καὶ ἄγκυραν ἡγουμένων κυβερνήτην...ἀλλὰ δεινὰς καὶ ἀθέους ἐμποιοῦσι δόξας, ἀναισθήτοις καὶ ἀψύχοις καὶ φθειρομέναις ἀναγκαίως ὑπ' ἀνθρώπων δεομένων καὶ χρωμένων φύσεσι καὶ πράγμασιν ὀνόματα θεῶν ἐπιφέροντες.* Cf. Lucr. II 655 *hic siquis mare Neptunum, Cereremque vocare constituit fruges, et Bacchi nomine abuti mavolt quam laticis proprium proferre vocamen* &c. [Swainson cites Naevius ap. Fest. p. 58 '*cocus edit Neptunum, Venerem, Cererem*'; *significat per Cererem panem, per Neptunum pisces, per Venerem olera.*] On *Ceres* see below § 67.

**vinum**: the deification of wine is perhaps derived from the old Homa-sacrifice of the early Aryans, see Döllinger I p. 400 foll. 'The Homa-drink was the medium through which the deity manifested itself'. 'Homa was the vivifying spirit of nature'. 'In the Homa the Parsees had a

sacrifice which had the plenary signification of a sacrament and a communion, imparting a fellowship with the deity'.

**sine Cerere—Venus**: from Ter. *Eun.* IV 5, 6, cf. *Aen.* I 701 *Cereremque canistris expediunt*, Ov. *Met.* V 341.

§ 61. **res in qua vis inest major**: the presence of Divinity is felt in the unaccountable or overpowering movements of the heart, as well as in the wonders of the external universe. The former correspond to the 4th class of deities in the list given *Plac. Phil.* I 6 (παθῶν μὲν Ἔρωτα, Ἀφροδίτην, Πόθον), though C.'s exx. (*Virtus*, *Salus* &c.) correspond more to the 5th class (πραγμάτων δὲ Ἐλπίδα, Δίκην, Εὐνομίαν), being signs rather of *bonitas divina*, than of *vis major*, which is more appropriately predicated of the succeeding class *Cupido*, &c. Similarly Theodoret *Therap.* III p. 45 ὃ γὰρ παθητικόν τε καὶ ἄλογον τῆς ψυχῆς ὀνομάζουσι μόριον, τοῦτο θεολογοῦσιν...καὶ τὴν μὲν ἐπιθυμίαν Ἀφροδίτην καλοῦσι καὶ Ἔρωτα· Ἄρεα δὲ τὸν θυμὸν ὀνομάζουσιν, τὴν δὲ μέθην Διόνυσον, καὶ τὴν μὲν κλοπὴν Ἑρμῆν, τὸν δὲ λογισμὸν Ἀθηνᾶν. **res** here is perfectly indefinite, 'ein gewisses Etwas' as Sch. says.

**ut Fides**: cf. below § 79 and III 61, Lactant. I 20, Arnob. IV 1, Val. Max. VI 6 (*De Fide Publica*), Hor. *Od.* I 35. 21 *te Spes et albo rara Fides colit velata panno; Leg.* II 28 *bene vero quod Mens, Pietas, Virtus, Fides consecratur humana: quarum omnium Romae dedicata publice templa sunt, ut illa qui habeant...deos ipsos in animis suis collocatos putent. Nam illud vitiosum Athenis, quod Cylonio scelere expiato, Epimenide Crete suadente, fecerunt Contumeliae fanum et Impudentiae; virtutes enim non vitia consecrare decet* (on this see Grote *Hist.* III p. 114 and *Journal of Phil.* VI 21); ibid. 19 (*colunto*) *olla propter quae datur homini ascensus in caelum, Mentem, Virtutem, Pietatem, Fidem; earumque laudum delubra sunto, neve ulla vitiorum; Off.* III 104 *praeclare Ennius 'O Fides alma apta pennis et jusjurandum Jovis'. Qui jus igitur jurandum violat, is Fidem violat, 'quam in Capitolio vicinam Jovis optimi maximi', ut in Catonis oratione est, majores nostri esse voluerunt.* This temple on the Capitol was first built by Numa, restored as we are told by Atilius Calatinus, dictator B.C. 249, and about 150 years later by Aemilius Scaurus. Meetings of the Senate were held there, and it was from thence that the senators rushed out and murdered Tib. Gracchus near the statues of the seven kings, which stood at the door of the temple, see Val. Max. III 2 § 17, Burn's *Rome* 192, Preller *R. M.* p. 224[2]. Jablonski wrote a treatise *De cultu Virtutum apud Gentes*, cf. Mayor on Juv. I 115.

**Mens**: her temple, vowed at the time of panic which followed the battle of Thrasymene, was built on the Capitol B.C. 217 by order of the Sibylline books (Liv. XXII 9, Ov. *Fast.* VI 241). Preller *R. M.* p. 628 cites an inscription to *Mens Bona*. Scaurus restored the temple at the time of the Cimbric panic, when, as Plutarch says (*Fort. Rom.* p. 318), the influence of the sophists made people think more of abstract ideas.

**Aemilius Scaurus**: B.C. 163—90, a strong supporter of the *Optimates*,

always spoken of in the highest terms by Cic., who is followed by Horace (*Od.* I 37) and Juvenal (XI 91), but charged with ambition and corruption by Sallust. The authority which he exercised is shown by a striking anecdote. Being accused by the tribune, Varius, of exciting the allies to revolt, he deigned no other reply than *Q. Varius Hispanus M. Scaurum principem senatus socios in arma ait convocasse: M. Scaurus pr. sen. negat: testis nemo est: utri vos Quirites convenit credere?* and was forthwith acquitted. (Asconius on the *pro Scauro* cited in Orelli's *Onomasticon* p. 19.)

**Atilius Calatinus** triumphed over the Carthaginians in the first Punic War. Cic. refers to him as an example of ancient virtue below § 165, *Tusc.* I 13, 110, *Cato* 61 (where his epitaph is given, *hunc unum plurimae consentiunt gentes populi primarium fuisse virum*), *Fin.* II 116, *Planc.* 60. We read (*Leg.* II 28) that he dedicated a temple to *Spes*, and hence Lambinus followed by Heind. reads *Spes* instead of the 2nd *Fides*, because *Spes*, which is mentioned in III 61 (but not below § 79) ought not to be omitted here, and because Numa was the first builder of the temple of *Fides*. Dav. defends the text, on the ground that *proxime* and *ante* must refer to the same.

**consecrata**: this verb means first 'to hallow', then 'to deify', as in III 39 *omne genus bestiarum Aegyptii consecraverunt*. Like *dedico* (lit. 'to devote') it is used both of persons and of things, cf. below 79 *Virtus, Concordia, consecratae et dedicatae*, III 13 *aedem Castori dedicatam*, ib. 43 *templa dedicata*, 61 *consecrata simulacra*, *Leg.* II 28 *Fides consecratur, templa sunt dedicata.*

**Virtutis**: there were two temples at Rome to *Honos* and *Virtus* combined; one near the *porta Capena*, dedicated originally to *Honos* by Fabius Cunctator B.C. 233, in consequence of a victory over the Ligurians: this was afterwards enlarged by Marcellus 'the sword of Rome', and 'dedicated to the two divinities to whom his life was consecrated' (Mommsen). He had vowed it first in the battle at Clastidium B.C. 222, where he won the *spolia opima* by slaying the Gallic king, and a second time during the siege of Syracuse. The temple was finally dedicated by his son 205 B.C. and adorned with treasures of art from Syracuse (*Verr.* IV 121, 123, Liv. XXVII 25, XXIX 11): among other things we read of the sphere of Archimedes being placed there (*R. P.* I 14). The second temple was erected by Marius on the Capitol in commemoration of his victories over the Cimbri and Teutons (*Sext.* 116 with Halm's n., Burn p. 193, Preller p. 613). Later a separate temple was built to *Virtus* by Scipio the Younger, and one to *Honos*, mentioned *Leg.* II 58.

**multis**: as only eleven years intervened between the dedication by Fabius and the vow at Clastidium, and only twenty-eight years between the earlier and later dedication, and as Fabius and Marcellus were too well known for C. to have forgotten that they were contemporaries, we ought perhaps to alter the reading of the MSS by the insertion of the negative.

**Opis**: wife of Saturnus and goddess of the earth, identified in later

times with Rhea the mother of the gods. She had a temple on the Capitol Liv. XXXIX 22, see Preller p. 417. Here she is regarded as synonymous with wealth. **Quid**: 'why should I mention her temple'?

**Salutis**: originally a Sabine goddess whose shrine was on the Quirinal. A temple was dedicated to her, as presiding over the safety of Rome, in the Samnite War 302 B.C., and decorated by Fabius Pictor (Preller p. 601).

**Concordiae**: her chief temple was built by Camillus on the slope of the Capitol B.C. 367, after the passing of the Licinian laws to establish harmony between the patricians and plebeians. This was enlarged by Opimius 121 B.C. after the overthrow of C. Gracchus (Aug. *C. D.* III 25) and again restored by the emperor Tiberius. It was here that the senate often met. A brazen shrine of Concord was erected by Flavius near the Senate-house in 303 B.C. to commemorate his attempt to assert the rights of the plebs. There was another chapel of Concord on the Arx, dedicated by L. Manlius to commemorate the suppression of a mutiny at the beginning of the 2nd Punic War; see Burn 84, 90 foll., 194, Preller 623.

**Libertatis**: there was a temple of L. on the Aventine built by Gracchus, father of the victor of Beneventum, in which the latter placed a picture of himself proclaiming the freedom of the volunteer slaves who had fought under him (Liv. XXIV 16). We also read of an *atrium Libertatis*, see Preller p. 616, Merkel *praef.* to Ov. *Fasti* p. cxxx. Clodius dedicated the house of the exiled Cicero to Libertas (*Dom.* 110).

**Victoriae**: cf. Preller 609, *Leg.* II 28 'if we are to invent names of gods, let us avoid such as *Febris* and rather choose those *Vicae Potae atque Statae cognominaque Statoris et Invicti Jovis, rerumque expetendarum nomina, Salutis, Honoris, Opis, Victoriae*'. L. Postumius dedicated a temple to Victory in the Samnite war 294 B.C. (Liv. X 33). Hiero sent to Rome a golden statue of victory after the battle of Cannae, which was gratefully accepted by the senate and placed in the temple of Jupiter on the Capitol (*victoriam omenque accipere, sedemque ei se divae dare dicare Capitolium, templum Jovis O. M.; in ea arce urbis Romanae sacratam volentem propitiamque, firmam ac stabilem fore populo Romano* Liv. XXII 37). Augustus placed in the Senate-house an altar and statue of Victory, which were afterwards regarded as the palladium of the state. The removal of the altar by Gratian gave rise to a famous dispute between Symmachus and St Ambrose.

**regi non posset**: this is scarcely the description we should have expected of such abstractions as *Salus* and *Concordia*. As was said above, C. probably applies to them what belongs to the personified passions which follow. Even then *sine deo regi* is hardly a suitable expression. The supernatural character of these passions is suggested by the fact that man feels himself overmastered by them, that they seem something distinct from his own personal being; not because they demand the control of a god.

**Cupidinis**: cf. III 58, 60. [Lactant. I 20 cites a lost passage from the *De Legibus* (?), *magnum audaxque consilium Graecia suscepit quod Cupidinum et Amorum simulacra in gymnasiis consecravit.* No temple of Cupid is known to have existed at Rome. The ruins called the Temple of Venus and Cupid have been so named without authority (Burn p. 219). Swainson].

**Voluptatis**: more properly *Volupia*, see Varro *L. L.* V 164 *in Nova Via ad Volupiae sacellum;* Macrob. *Sat.* I 10 § 8 mentions her *sacellum* and *ara*.

**Lubentinae**: better known under the form *Libitina*, as the goddess of funerals, because every death had to be registered in her temple, and all that was needed for funerals was exposed for sale there. Hence we have the name *libitinarii* for undertakers, and the phrase *Libitina ad funera vix sufficiebat* to express a scarcity of coffins in time of plague (Liv. XL 19). Plutarch offers various explanations for this association of birth and death under a common divinity *Qu. Rom.* 23, Preller p. 387.

**vitiosarum rerum**: see III 44, 63 *perniciosis rebus...Febris, Orbona; Leg.* II 28 cited above; Seneca ap. Aug. *C. D.* VI 10 *Hostilius Pavorem atque Pallorem teterrimos hominum affectus (dedicavit);* Plin. *N. H.* II 5 *innumeros credere (deos) atque etiam ex virtutibus vitiisque hominum, ut Pudicitiam, Concordiam, Mentem, Spem, Honorem, Clementiam, Fidem, aut, ut Democrito, placuit, duos omnino Poenam et Beneficium, majorem ad socordiam accedit.* 'Fear led men to deify Disease and Misfortune'; *sed super omnem impudentiam adulteria inter ipsos fingi, mox jurgia et odia; atque etiam furtorum esse et scelerum numina.* The Christian apologists, such as Minucius and Tertullian, naturally take advantage of such admissions.

**neque naturalium**: Sext. Emp. XI 73 Κλεάνθης μήτε κατὰ φύσιν μήτ' ἀξίαν ἔχειν τὴν ἡδονήν, *Cato* 39.

**pulsant**: cf. ἱμέρῳ πεπληγμένος *Agam.* 1204.

B d (3). *The name of God is given by the popular religion to the spirits of departed benefactors.* § 62.

§ 62. **utilitatum igitur**: referring back to § 60 *quicquid magnam utilitatem*.

Ch. XXIV **suscepit vita hominum ut tollerent**: cited by Lact. I 15. In *Plac. Phil.* I 6 'the 7th description of divinity is' τὸ διὰ τὰς εἰς τὸν κοινὸν βίον εὐεργεσίας ἐκτετιμημένον, ἀνθρώπινον δὲ γεννηθέν, ὡς Ἡρακλέα, ὡς Διοσκόρους, ὡς Διόνυσον. The more natural construction here would be *suscepit in caelum* 'has admitted to divine honours', but this is defined by *ut tollerent*, cf. *Tim.* c. 11 *vos suscipite ut gignatis.*

**fama ac voluntate**: 3 *Catil.* 2 (*Romulum*) *ad deos immortales benevolentia famaque sustulimus; Off.* III 25 *Herculem illum quem hominum fama beneficiorum memor in consilio caelestium collocavit* foll. **voluntas** is the gratitude shown in the popular belief. Prodicus seems to

have been the first to throw the heroic legends into the form of a moral apologue.

**hinc Hercules**: Hor. *Od.* III 3. 9 *hac arte Pollux et vagus Hercules enisus arces attigit igneas...hac te merentem, Bacche pater, tuae vexere tigres...hac Quirinus Martis equis Acheronta fugit; Sext.* 143 *imitemur nostros Brutos, Camillos...innumerabiles alios...quos equidem in deorum numero repono...neque hanc opinionem si in illo sanctissimo Hercule consecratam videmus, cujus corpore ambusto vitam ejus et virtutem immortalitas excepisse dicitur, minus existimemus eos qui hanc tantam rem publicam suis consiliis aut laboribus auxerint...esse immortalem gloriam consecutos;* Plin. *N. H.* II 5 *deus est mortali juvare mortalem, et haec ad aeternam gloriam via: hac proceres iere Romani, hac nunc caelesti passu cum liberis suis vadit maximus omnis aevi rector Vespasianus Augustus...Hic est vetustissimus referendi bene merentibus gratiam mos, ut tales numinibus adscribant;* see I 9, 38 with nn., *Leg.* II 19, *Tusc.* I 28, *Parad.* I 11, *R. P.* III 40; and on Apotheosis generally Preller p. 769 foll., Döllinger I p. 343 foll. II p. 31, 165 foll. A remarkable instance is that of Brasidas, to whom yearly sacrifices were offered after his death by the people of Amphipolis, Thuc. V 11. We are told (Macr. *Sat.* I 23 § 7) that Posidonius was the author of a special treatise on the Heroes, see Bake *Pos.* p. 45. **Hercules** is properly the god of husbandry, identified with the old *Semo Sancus*, the god of fidelity (Seeley's Livy p. 30, Preller p. 640). The Greek Heracles is properly a solar deity, but foreign and oriental elements have been mixed up with his story, cf. below III 42. He became as it were the 'patron saint' of the Stoics, see my *Sketch of Anc. Phil.* p. 250, and Mayor on Juv. X 361.

**Castor et Pollux**: see above § 6 and III 53.

**Aesculapius**: see below III 39, 45, 57. The worship of the Epidaurian Ἀσκληπίος was introduced into Rome at the command of the Sibylline books, on occasion of a pestilence B.C. 291. Ovid tells the story of the voluntary departure of the sacred snake from the original shrine, of his leaving the vessel, in which he was being conveyed to Rome, when they reached the island in the Tiber where his temple afterwards stood (*Met.* XV 622 foll., Preller p. 607). Possibly the name may be an epithet of Apollo: at Smyrna he was worshipped as Zeus Asclepios (Grote *Hist.* I 248). Galen (*Protr.* 9 p. 22 K.) discusses whether he is to be regarded as θεὸς ἐξ ἀρχῆς or a deified man; Pausanias (II 26) believed the former.

**Liber**: properly means 'unconstrained' 'jovial'. Liber and Libera were the male and female deities of harvest and vintage, and of productiveness both in plant and animal. In the festival of the *Liberalia*, described by Ovid *Fasti* III 713, they were worshipped along with Ceres, the goddess of growth and production (*creo*), and identified at an early period with Demeter, Dionysus and Persephone. A joint temple was dedicated to them B.C. 494 in accordance with the Sibylline books. It was built in the Greek fashion, and priestesses were brought from Neapolis to

instruct the Romans in the customary rites (Preller p. 132, 440). The *Cerealia* are described by Ovid, ib. IV 393 foll. Cicero's derivation is naturally suggested by the Gr. κόρη, but the common phrase *Liber pater* is opposed to it. The Roman deity was never supposed to be of human origin. On the Iacchus of the mysteries see I 119 n.

**auguste sancteque**: the two words are also joined below § 79, as in I 119 and III 53.

**quod quale sit...potest**: 'the import of which joint consecration may be learnt from the mysteries'.

**ex nobis natos**: so *Lael.* 27 *ex se natos.* **Cerere nati**: see I 103 n.

**in Libero non item**: we might understand this as follows 'we always remember that Libera means the daughter of Ceres; but when we use the name Liber, we think of Bacchus, the god of wine, without reference to his parentage'. But it seems better to take it as a translation of some such Greek as ὅπερ ἐν Κόρῃ τηροῦμεν ἀλλ' οὐκ ἐν Κόρῳ, because the name Daughter was in regular use for the goddess Persephone, but not Son for the god Iacchus? It will then mean 'a use which they (perhaps the third person rather implies that C. is not speaking of Romans) observe in the case of the Daughter but not of the Son'. I do not see any probability in Preller's idea (*Gr. M.* I p. 614[2]) that it may refer to the doubtful parentage of the mystic Bacchus. Heind. inverts *Libero* and *Libera*, taking it to mean that *liber*, in the sense of 'child', was used for a boy, but not for a girl, cf. Hyg. 9 *procreavit liberos septem, totidemque filias;* the Sing. is found occasionally in post-Augustan writers. **non item**: used when a negative statement follows the positive, to save the repetition of the predicative word, cf. *Tusc.* IV 31 *animorum non item*, *Att.* II 21 § 4 *ceteris non item*, *Acad.* II 22 *alterum percepta tenere videmus, alterum non item*, *Leg.* I 45 *ingenia juvenum non item.*

**Romulus**: "the first generation of Romans which turned its attention to the national antiquities, the generation of Fabius, Cincius and Cato, was quite prepared to take that view of many of the national deities which Euhemerus had taken of deities in general (*N. D.* I 119). A striking example is contained in Virg. *Aen.* VII 177, where, in the palace of Latinus, there are said to stand statues of his ancestors, and among them are enumerated some of the leading names in the old Italian pantheon (Saturnus, Janus, Picus, Faunus)", Seeley's Livy p. 18. Romulus is properly one of the two guardian deities (*lares*) of Palatine Rome (Seeley p. 31, Preller p. 694). **Quirinus** is the Sabine god of war (Seeley p. 38, Preller p. 326).

**quorum cum remanerent—di sunt habiti**: on this form of the Relative construction, instead of *qui, cum eorum* &c., see n. on I 12 *ex quo exsistit*, and Madv. § 445 there cited. For *rite* Wopkens cites I 52 *rite beatum*, *Leg.* I c. 7 *nominatur rite sapientia.*

**aeterni**: according to the old Stoical view the good survive only to the next conflagration (Diog. L. VII 157), but we find this innovation on

the old doctrine elsewhere in Cic. cf. above I 1 n. on *agnitionem animi; Div.* I 115 (*animus*) *quia vixit ab omni aeternitate versatusque est cum innumerabilibus animis, omnia, quae in rerum natura sunt, videt; si modo temperatis escis modicisque potionibus ita est affectus, ut sopito corpore ipse vigilet;* ib. 131 *quid est igitur cur, cum...animi hominum semper fuerint futurique sint, cur ii, quid ex quoque eveniat et quid quamque rem significet, perspicere non possint? Tusc.* I 55 *sentit igitur animus se moveri; quod cum sentit, illud una sentit, se vi sua, non aliena moveri, nec accidere posse, ut ipse umquam a se deseratur; ex quo efficitur aeternitas:* also in Seneca *Ep.* 102 § 2 *juvabat de aeternitate animarum quaerere, immo mehercules credere;* ib. § 26 *dies iste, quem tamquam extremum reformidas, aeterni natalis est.* As there is reason to believe that Posidonius is the author copied by C. in both the works cited (see Schiche on the *Fontes* of the *De Divinatione* and Corssen on *Tusc.*), and as Seneca continually quotes from Posidonius, there can be little doubt that we may trace his finger here, cf. Corssen l. c. pp. 10—30. There is an apparent inconsistency, which is hardly to be escaped in speaking of such matters, between this passage and § 153 below, where the wise man is spoken of as *nulla alia re nisi immortalitate cedens caelestibus;* we find many parallels in Seneca.

B d (4). *The name of God is given by the popular religion to the personified forces of nature.* §§ 63—71.

§ 63. **physica ratio** = λόγος φυσικός, a physical explanation: cf. Firmicus 2 *defensores volunt addere physicam rationem, frugum semina Osirim, Isim terram, Typhonem calorem* &c., and the nn. on *N. D.* I 36, 38, 40, 41, II 23. The Stoics agreed with a modern school of mythologists in tracing back the abominations of the legends to the misinterpretation of the mythical representation of nature, see M. Müller *Lectures on Lang.* ser. II, Lect. 9, p. 384 foll. So Bacon (*Wisdom of the Ancients*) argues that there must have been a mystical sense in the fables from the absurdity of their outward form, *habemus sensus occulti signum non parvum, quod nonnullae ex fabulis tam insulsae inveniantur ut parabolam veluti clament.* Another proof is the significance of the names Metis, Typhon, Pan, &c. The same grounds are alleged by Max Müller, but the lessons drawn from the myths by Bacon are for the most part moral or political, like those which Horace finds in the Odyssey; though his interpretation of the story of Caelus and Saturnus (12) and of Proserpina (29) is not unlike the Stoic. On the allegorization of the myths see I 36 (n. on θεογονίαν), III 62, Zeller IV p. 323 foll. Grote *Hist.* Pt. I ch. 16. Metrodorus of Lampsacus, a friend of Anaxagoras, is said by Diog. L. (II 11) to have been the first to allegorize Homer, but the same thing had been already done by Theagenes of Rhegium 520 B.C. (Grote I p. 557). Democritus seems to have followed the fashion (Zeller I 835). The Scholia to Hesiod contain many specimens of Stoic allegories, see Flack *Glossen u. Scholien* p. 29 foll.; but the chief storehouse for them

is to be found in the *Natura Deorum* of Cornutus with Villoison's notes and in the *Homeric Allegories* of Heraclitus.

**et quidem**: 'and that, genuinely philosophical, not superstitious', cf. *Div.* II 148 (printed as the motto of vol. I) *religio propaganda est, quae est juncta cum cognitione naturae.* On *et quidem* see Index.

**induti specie humana**: 'who have had a human form put upon them, and have thus furnished a supply of fables to the poets'.

**nam cum vetus—opplevisset**: the insertion of *cum*, which might easily be lost after *nam*, explains the *opplevisset* of the best MSS, and gets rid of the harsh asyndeton, involved in the reading adopted by Mu. and Sch. The latter objects (*Opusc.* III 371) that the Stoics considered their *physica ratio* to be the original sense of the myths, and that it is incorrect to represent this meaning as foisted into them by philosophers in recent times. But we may understand the Latin as follows 'whereas the general belief throughout Greece was that Uranus was mutilated and Cronos bound, the theory which was put into that coarse form was far from wanting in refinement'. [Perhaps rather 'wanting in point'. *Eleganter* is a common word in Law Latin and generally used in this way, e.g. *eleg. scribit* 'puts a nice point', 'reasons closely and neatly'. R.]

**Caelum**: for the story see Hes. *Theog.* 159—182, and for other interpretations Cornutus c. 7, Flack pp. 44 foll., 62 foll., Lactantius I 12. Preller's explanation (*Gr. M.* I 45) is not unlike that given by Cornutus: Cronos, the god of harvest (connected by him, as by Cornutus, with κραίνω, 'to bring to perfection', hence Zeus Cronion 'the son of Perfection') puts an end to the excessive fecundity of Uranus, and thus allows the various powers of earth and heaven to grow to maturity. He compares it with other myths in which heaven and earth are said to have been so closely joined at first that there was scarcely room for the other gods to exist between them.

§ 64. **non inelegans**: *Brutus* 202 *orationis non inelegans copia*, 'a choice vocabulary', ib. 101 *historia non ineleganter scripta*, *Fin.* II 26 *divisit ineleganter, duo enim genera quae erant, fecit tria*, § 27 *contemnit disserendi elegantiam, confuse loquitur.* See Ernesti *Lex Techn.* s. v.

**impias fabulas**: Heracl. *Alleg.* p. 438 Gale *ταύτης τοίνυν τῆς ἀσεβείας ἓν ἐστιν ἀντιφάρμακον ἐὰν ἐπιδείξωμεν ἠλληγορημένον τὸν μῦθον*, Seneca *Vita B.* c. 26 *vestras hallucinationes fero quemadmodum Jupiter ineptias poetarum: quorum alius illi alas imposuit, alius cornua, alius adulterum illum induxit.* On the encouragement to immorality by these representations see Plato *Rep.* II 378 foll., *Leg.* 636, *Euthyph.* 6, Arist. *Pol.* VII 18, and the passages cited in Tholuck's *Nature and Moral Influence of Heathenism* (in Clark's *Student's Cabinet Library*, vol. VIII), [esp. Ter. *Eun.* 583 foll. with Augustine's comments (*Conf.* I 12, *C. D.* II 7, 12, *Epist.* 202), also Gieseler (Eng. tr. I 25 n. 3), Friedländer I³ 391 foll. J. E. B. M.]

**caelestium**: though the edd. have followed Dav. in changing *caelestem* in § 56, they retain it here with far less MS authority. Heind. maintains

that the ref. is to the heaven itself and not to the heavenly bodies, but both are alike ethereal, only that the latter are a concentrated form of ether. For the substantival use of *caelestia* cf. *Cato* 77 *caelestium ordinem contemplantes*, *Tusc.* V 8 *caelestium divina cognitio.*

**voluerunt**: those who clothed the truth in the form of fable meant that that highest all-creative element of ether or fire, of which the heavenly bodies are composed, was complete in itself and needed no other aid.

Ch. XXV **χρόνος**: the first suggestion of this untenable etymology is found in Eurip. *Heracl.* 900 Αἰὼν Κρόνου παῖς. It appears in Cornutus c. 2, Heracl. *All.* p. 465, Macrob. *Sat.* I 8, Varro ap. Aug. *C. D.* VII 19.

**Saturnus quod saturaretur annis**: it is curious that a similar derivation was given for Κρόνος, see Plat. *Cratyl.* 396 Κόρον νοῦ, Lydus *Mens.* p. 26 Κρόνον διακορῆ νοῦν οἱονεὶ πλήρη καὶ μεστὸν ἐτῶν, ἀντὶ τοῦ μακραίωνα. Varro (*L. L.* V 64 and *Ant.* XVI) gives the more correct etymology, *ab satu est dictus.* The older form is *saeturnus.* For the Mood cf. § 68 *Diana dicta quia efficeret* and Roby *Gr.* § 1744.

**natos comesse fingitur**: Flack p. 63 cites Greek authorities for the interpretation given, which he traces back to Zeno. Preller's explanation is that the summer heat, while it ripens the fruit, also burns up the plant. For the form cf. *esse* in § 7.

**insaturabiliter**: the adv. appears to be ἄπ. λεγ., the adj. is found *Sest.* 110.

**vinctus a Jove**: Hes. *Theog.* 718, Plato *Euthyphr.* 5 E.

**ne haberet atque ut eum alligaret**=*ne haberet sed sidereis cursibus coerceretur.* Time is limited by the sidereal movements. For the change of Subject cf. § 36 n. and Wopkens *Lect. Tull.* p. 264 cited by Sch.

**juvans pater**: Ennius gave this derivation in his *Epicharmus* fr. 7, *istic est Juppiter, quem dico, quem Graeci vocant aerem; qui ventus est et nubes, imber postea, atque ex imbre frigus; ventus post fit, aer denuo. Haecce propter Juppiter sunt ista quae dico tibi* (they are called by the name Juppiter) *quoniam mortales atque urbes beluasque omnes juvat.* Varro in citing this gives a better etymology *olim Diovis et Diespiter dictus, id est dies pater*, *L. L.* V 66. Gellius V 12 follows Ennius.

**conversis casibus**: 'by a change of inflexions', not, I think, 'in the oblique cases, as being the cases which undergo change of form' (L. and S. after Sch.), nor as Lescal. 'in the heteroclite cases'. Cic. uses *casus* in *Orat.* II 358 where he describes a mnemonic system in which the word to be remembered is suggested by one slightly differing, *similium verborum conversa et immutata casibus notatio; Herenn.* IV 31 *varie hic unum nomen in commutatione casuum volutatum est* (the name Alexander has just been used in the Nom. Gen. Dat. &c.); *Orator* I 60 *casus rectus.* Varro opposes *obliqui* (πτῶσις πλαγία of the Greeks) to *rectus L. L.* VIII 46, 49 &c. Aristotle uses πτῶσις in a wider sense of any sort of inflexion including the Adverb, but excluding the Nom. from which it declines or falls away

(*Categ.* I, *Rhet.* III 9); cf. Ammonius (quoted by Lersch *Sprachphilosophie*) εἰκότως λέγομεν πτώσεις διὰ τὸ πεπτωκέναι ἀπὸ τῆς εὐθείας (II p. 181—194, 229—233). The Stoics, who paid great attention to grammar, included the Nom. among the πτώσεις, calling it ὀρθή. This terminology was objected to by the Peripatetics. Perhaps the pl. *casus* implies not only *Jovem*, but *Jovis*, *Jovi* &c.

**pater divumque hominumque**: see above § 4 n.

**optimus**: see Preller p. 183 foll., who thinks the original meaning referred not to moral excellence, but to rank, 'the highest and greatest' [lit. 'the uppermost' from *ob*, cf. *extimus*, *intimus*, R.], meaning little more than that the Capitolian Jove was the universal sovereign; cf. *R. P.* III 23 *sunt...tyranni, sed se Jovis Optimi nomine malunt reges vocari.* Cic. however often ascribes to it an ethical purport, cf. *pro Domo* 144 *quem propter beneficia Populus Romanus Optimum, propter vim Maximum nominavit*, *Fin.* III 66 *Jovem cum Optimum et Maximum dicimus, cumque eum Salutarem, Hospitalem, Statorem, hoc intelligi volumus, salutem hominum esse in ejus tutela*, so Pliny *Paneg.* 88, on the title *Optimus* granted to Trajan by the Senate, *minus est Imperatorem et Caesarem et Augustum quam omnibus Imperatoribus et Caesaribus et Augustis esse meliorem. Ideoque ille parens deorum Optimi prius, deinde Maximi nomine colitur.*

**beneficentissimus**: adjectives compounded with the verbs *facio*, *dico*, *volo*, as well as *egenus* and *providus* form their comparatives and superlatives as if from participles in *-ens*. *Pientissimus* is found in inscriptions.

**certeque**: we should rather say '*or* at least', correcting the previous statement.

§ 65. **hunc igitur Ennius**: in the MSS these words begin a new sentence; I have followed Mu., who understands them to resume the construction of *ipse Juppiter*, and considers *a poetis—dicitur* to be διὰ μέσου *interposita*, '*neque enim id agit Cicero, ut, quae nomina dis dederint poetae, demonstret, sed ut physicam deorum rationem explicet*' (*Adn. Crit.* p. IX), cf. Bake *Mnemosyne* II p. 415 foll. and, for similar instances of Anacoluthon, Madv. § 480 and Index *s. v.*; for resumptive force of *igitur* I 44 n.

**ut supra**: § 4.

**qui quod in me est—quicquid est**: I have followed Gulielmius ap. Gruter in reading *qui* for *cui*, of which, I think, no satisfactory interpretation has been given. Wyttenbach is certainly wrong in interpreting *cui ego omne quod in me est et lucet, i. e. vitam meam, consecrabo.* It is plain that *hoc quod lucet* must mean 'the sky', see § 4 on *hoc*. For *quicquid est* cf. Eurip. fr. 483 Ζεύς, ὅστις ὁ Ζεύς, οὐ γὰρ οἶδα πλὴν λόγῳ κλύων, *Troad.* 884 ὅστις ποτ' εἶ σύ, δυστόπαστος εἰδέναι, Ζεύς, εἴτ' ἀνάγκη φύσεως, εἴτε νοῦς βροτῶν. [Add Blomfield on *Agam.* 160, Schömann on *Prom. V.* 98, Servius on *Aen.* IV 577, Heind. on Hor. *Sat.* II 6, Philostr. *Apollon.* I 28. J.E.B.M.] Heind. translates 'on whom with all my might I will invoke the curse of

heaven', comparing the construction of καταράομαι in the epigram ἤν τιν' ἔχῃς ἐχθρὸν, Διονύσιε, μὴ καταράσῃ τὴν Ἶσιν τούτῳ. It does not seem that we have any ex. of *exsecror* used in this sense or with Dat.; it is found absolutely *Tusc.* I 107 *exsecratur apud Ennium Thyestes ut pereat Atreus*, and with *in* and Acc. or with Acc. alone, e. g. *exsecror te*, or *exsecratur in se* Liv. x 28, xxx 20. Kühner translates 'that to which I will devote all my powers is this shining vault, whatever its name'; Sch. agrees in thinking that *exsecror* may have this force, 'to consecrate one thing out of all other things', but adds no translation. Vahlen and Ribbeck read *cur* for *cui* referring to Hartung *Eur. Rest.* II 53; this seems to me improbable with the strong phrase *quod in me est.* Reading *qui* (Abl.) I translate 'Wherefore with all my might I will curse this shining heaven'. Mr Roby remarks that such words would be natural in the mouth of Thyestes, and that the preceding fragment is taken from the play of that name.

**Jove fulgente**: cf. *Div.* II 42 *nonne perspicuum est, ex prima admiratione hominum, quod tonitrua jactusque fulminum extimuissent, credidisse ea efficere rerum omnium praepotentem Jovem? Itaque in nostris commentariis scriptum habemus: Jove tonante, fulgurante, comitia populi habere nefas; Vatin.* 20 *augures omnes usque a Romulo decreverunt Jove fulgente cum populo agi nefas esse.*

**dicunt—tonante**: if this is not a gloss, we have *dicunt* used in the sense of 'mean', as in *rationem dico* § 18, *solem dico* § 80, not as immediately before.

**ut multa praeclare**: cf. below § 79 *concinne, ut multa.*

**breviter**: is plainly inappropriate here. Some have suggested *graviter.* Ba. refers to *Div.* II 107 *festive et breviter*, but there terseness is the conspicuous quality of the preceding argument: here the lines of Euripides are wordy in comparison with that of Ennius. The same may be said of the exx. cited by Mu. (*Fleckeisen's Jahrb.* 1864 p. 134) *Leg.* II 23, *Ac.* I 43, *Brut.* 14, Fronto p. 254 Nieb. *omnem sententiam breviter et scite concludet.* I think Heind. is right in considering it to be a marginal note calling attention to the abbreviation of the formula *Jove fulgente cum populo agi nefas.*

**vides sublime fusum**: translated from an unknown play of which this fragment is fortunately preserved, ὁρᾷς τὸν ὑψοῦ τόνδ' ἄπειρον αἰθέρα καὶ γῆν πέριξ ἔχονθ' ὑγραῖς ἐν ἀγκάλαις· τοῦτον νόμιζε Ζῆνα, τόνδ' ἡγοῦ θεόν (fr. 836). Paley (*Eurip.* I p. xxviii) gives other passages in which Eur. deifies ether. The translation is probably by C. Herod. (I 131) says the Persians τὸν κύκλον πάντα τοῦ οὐρανοῦ Δία καλοῦσιν.

**immoderatum**: Lucr. I 1013 *simplice natura pateat tamen immoderatum.*

**tenero**: so Lucr. I 207 *teneras auras*, II 106 *aera tenerum;* Munro remarks that 'the air has the same epithet in Ennius, Virgil and Ovid: it implies what is soft, yielding, elastic'; he also cites Cic. *Orat.* III 176 where *oratio* is described as *tenera.*

**circumjectu**: used of the rampart of the *arx R. P.* II 6.

Ch. XXVI § 66. **aer—Junonis nomine consecratur**: the Greek mythologers considered Ἥρα to be another form of ἀήρ, e.g. Plato *Cratyl.* 404 ἴσως δὲ μετεωρολογῶν ὁ νομοθέτης τὸν ἀέρα Ἥραν ὠνόμασεν ἐπικρυπτόμενος, θεὶς τὴν ἀρχὴν ἐπὶ τελευτήν· γνοίης δ' ἄν, εἰ πολλάκις λέγοις τὸ τῆς Ἥρας ὄνομα (like the αὐτομολῶμεν of the *Equites*) cf. Grote *Plato* II 516 foll. The elements had been previously deified by Epicharmus cited by M. Müller p. 393 ὁ μὲν Ἐπίχαρμος τοὺς θεοὺς εἶναι λέγει ἀνέμους ὕδωρ γῆν ἥλιον πῦρ ἀστέρας, and by Empedocles *Plac. Phil.* I 3 τέσσαρα τῶν πάντων ῥιζώματα πρῶτον ἄκουε· Ζεὺς ἀργὴς Ἥρη τε φερέσβιος ἠδ' Αἰδωνεὺς Νῆστίς θ', ἣ δακρύοις τέγγει, κρούνωμα βρότειον, thus explained by the epitomator, Δία μὲν γὰρ λέγει τὴν ζέσιν καὶ τὸν αἰθέρα, Ἥρην δὲ τὸν ἀέρα, τὴν δὲ γῆν τὸν Αἰδωνέα, Νῆστιν δὲ καὶ κρούνωμα βρότειον, οἱονεὶ τὸ σπέρμα καὶ τὸ ὕδωρ : others however identified Ἥρα with earth and Αἰδωνεύς with air, see Sturz *Emped.* p. 209 foll. The Stoics followed in the same line, see Cornutus c. 3, Diog. L. VII 147 with nn., Heracl. *Alleg.* p. 429 Gale, δύο γὰρ ὄντων κατὰ τοὺς φυσικοὺς τῶν πνευματικῶν στοιχείων, αἰθέρος τε καὶ ἀέρος, τὸν μὲν Δία τὴν πυρώδη φαμὲν οὐσίαν· ἡ δὲ Ἥρα μετ' αὐτόν ἐστιν ἀήρ, μαλακώτερον στοιχεῖον, διὰ τοῦτο καὶ θῆλυ, Varro ap. Aug. *C. D.* VII 6 (while professing monotheism, V.) *adjungit mundum dividi in duas partes, caelum et terram ; et caelum bifariam in aethera et aera ; terram vero in aquam et humum...quas omnes partes animarum esse plenas.*

**interjectus inter mare et caelum**: on the order of the four elements see §§ 26, 42, 101, 117.

**et similitudo est aeri aetheris et cum eo conjunctio**: the edd. change the first *et* into *ei* after Probus. I think both are needed : Juno is sister and therefore like, wife and therefore united. Also it seems to me there would be awkwardness in *ei* and *eo* referring to different subjects. I have ventured to insert *aeri* before *aetheris*, as Mu. has done I 103. It is to a certain extent in favour of this emendation, that Probus has *aeris* instead of *aetheris*. The Dat. is of course dependent on *est*, as in *Leg.* I 25 *est igitur homini cum deo similitudo.*

**sed Junonem—nominatam**: this clause is questioned by Baiter, Stamm (*Interpol.* p. 33) and Vaucher; but it is preserved by Probus, and I see no particular objection to it. It would be strange if the etymology were wanting in the case of Juno alone. I take *sed* to introduce an incidental remark like *autem* or δέ, 'by the way'; not (as Degenhart p. 65) to denote the opposition between the physical derivation of Ἥρα and the non-physical derivation of 'Juno'. Perhaps Allen is right in inserting *item* after *Junonem*. *Credo* implies that Cic. is not quite certain as to the etymology, which he has borrowed from Varro *L. L.* V 67.

[The stem *Junon* is in Roman vowels jŏv-ĕn-ōn, in primitive *jaw-an-an.* The first syllable is seen in *Jov-is* Δι-ός (=ΔιϜ-ος) : the second as well as the first in Δι-ών-η, *Di-ān-a*, Ζᾶν (=Δι-αν), *J-ān-us* (the old or Doric α corresponding, as often, to ω), and also *jŭv-ĕn-is*, *jū-n-ior*, *jŭv-en-ca* reminding one of βοῶπις Ἥρα and of the use of heifers in the rites of Juno.

The third syllable is more difficult, because the termination *-on* (not *-ion*) in Latin is, when applied to personal names and generally, masculine (see *Gr.* §§ 851, 852). But the early poets here come to our help. They treated Greek feminine substantives in -ω as having this termination, and spoke of *Didonem*, *Calypsonem* &c. (*Gr.* § 481), probably suggested by the accusatives in ν (-ων, -οῦν) occasionally found (Kühner *Gr. Gr.* § 129). R.]

**ex fabulis**: Hom. *Il.* xv 187.

**Portunus**: *pater Portunus* in *Aen.* v 241, the god of entrances and harbours, cf. Preller p. 158.

**Neptunus**: Preller p. 502 compares the Etruscan 'Nethuns', which he connects with νάω, νέω, considering that the digammated forms νεύσομαι, ναῦς show the possibility of a derivative such as *Nept.* = *Nereus.* Curtius and Vaniçek agree with Varro *L. L.* v 72 in connecting it with *nubes* (νέφος) *quod mare terras obnubit, ut nubes caelum.*

**Diti, qui dives**: for the omission of the verb in Rel. Clause see I 68 n.; for the etymology Plato *Cratyl.* 403 τὸ δὲ Πλούτωνος, τοῦτο μὲν κατὰ τὴν τοῦ πλούτου δόσιν, ὅτι ἐκ τῆς γῆς κάτωθεν ἀνίεται ὁ πλοῦτος, ἐπωνομάσθη, Tib. III 3. 38 *dives Orcus.* Another Stoic view was that Pluto was the lower region of the air (Cornutus 5, Varro *L. L.* v 66), in which Seneca believed that the soul underwent purgatorial discipline before ascending to the ether, *Cons. ad Marc.* 25 *integer ille (filius) nihilque in terris relinquens sui fugit et totus excessit, paulumque supra nos commoratus, dum expurgatur et inhaerentia vitia situmque omnem mortalis aevi excutit, deinde ad excelsa sublatus inter felices currit animas.*

**cui Proserpinam nuptam**: I think C. wrote thus, intending to make it dependent on *fingunt;* but the construction was broken through the parenthesis. The similarity of termination would account for the disappearance of *nuptam.* Edd. read *nuptam dicunt* before *Proserpinam* without MS authority.

**Graecorum nomen est**: Preller (p. 443) and Vaniçek agree with Cic. in considering it a corruption of the Greek, the oldest form being *Prosepina*, which was naturally altered so as to derive it from *proserpo*, cf. Varro *L. L.* v 68 *hinc Epicharmus Enni Proserpinam quoque (lunam) appellat, quod solet esse sub terris. Dicta Proserpina, quod haec ut serpens modo in dexteram, modo in sinistram partem late movetur.* A more plausible explanation is that of Arnobius III 33 *quod sata in lucem proserpant cognominatam esse Proserpinam;* for other explanations see Osann on Cornutus pp. 341—344. 'Persephone signifies the seed-corn, which, when cast into the ground, lies there concealed, i.e. she is carried off by the god of the under-world; it reappears, i.e. Persephone is restored to her mother and abides with her two-thirds of the year', Keightley *Mythology* p. 176.

§ 67. **a gerendis frugibus Ceres**: the same derivation appears in Varro *L. L.* v 64, apparently after Ennius. The Romans were naturally led to such an etymology by the fact that the same character (C) was used indiscriminately for the sharp and flat guttural till the beginning

of the sixth century U.C. when the modified symbol (G) was introduced to distinguish the flat sound; and that C. still stood for Gaius &c. thus Varro adds l. c. *antiquis enim C quod nunc G.* A better etymology is given by Serv. on *Geo.* I 7 *alma Ceres a creando dicta,* Preller p. 70 and 403.

**quasi Γημήτηρ**: cf. Sext. Emp. IX 189 ἡ γὰρ Δημήτηρ, φασίν, οὐκ ἄλλο τί ἐστιν ἢ γῆ μήτηρ, Cornutus c. 28, and the Orphic line in Diod. I 12 Γῆ μήτηρ πάντων Δημήτηρ πλουτοδότειρα, who adds βραχὺ μετατεθείσης διὰ τὸν χρόνον τῆς λέξεως: this etymology is accepted by Preller, but rejected by Curtius after Ahrens *Dial. Dor.* p. 80, who says we never find her called Γημήτηρ, and that the supposition that δῆ or δᾶ stands for earth has no support beyond the conjecture of grammarians. He considers Δῆ to be a cognate form of Ζεύς, Διός, the divine Mother, as contrasted with the Daughter (κόρη).

**jam**: particle of transition as below § 68. See Index.

**qui verteret**: Causal Relative.

**Mavors**: Swainson quotes from Lord Brooke's *Treatise of Warres* l. 67 'was not this Mars then Mavors rightly named, that in one instant all thus overthrows'. Varro connects *Mars,* with *mas, quod maribus in bello praeest L. L.* V 73, in which Preller agrees, citing the collateral forms, *Maurs, Mamers, Marmar.* Max Müller *Lect.* II 323 derives it from a root MAR to grind, whence *mors,* and *Mars* the killing god, so also Mommsen I 175; Corssen connects it with MAR to shine.

**Minerva**: really connected with *mens,* as is shown more clearly in the older form *Menerva.* Cicero's derivations miss the orthodox Stoic interpretation, according to which Athene is the highest manifestation of Zeus in the ether, as πρόνοια; see n. on Diogenes of Babylon I 41, Cornutus c. 20 with Osann's nn. and Paulus (Festus) p. 125 Müller, *Minerva dicta quod bene moneat;...Cornificius vero, quod fingatur pingaturque minitans armis.* On all these etymologies see the contemptuous remarks of Cotta III 62 foll.

**minueret**: referring to her martial attributes, 'to humble'.

Ch. XXVII **cum haberent—voluerunt**: though subordinated in tense to the apodosis, the protasis is not limited in meaning to past time, see below § 80 *videremus* and *inessent* depending on *docuerimus,* and passages cited on § 2 *mallem audire,* also Draeger § 151. 4. For the thought compare such proverbial expressions as *principiis obsta; dimidium facti qui bene coepit habet.*

**principem in sacrificando**: cf. Ov. *Fasti* I 170 *cur, quamvis aliorum numina placem, Jane, tibi primum tura merumque fero? ut posses aditum per me, qui limina servo, ad quoscunque voles, inquit, habere deos;* Hor. *Sat.* II 6. 20 *matutine pater, seu Jane libentius audis, unde homines operum primos vitaeque labores instituunt, sic dis placitum, tu carminis esto principium;* Macrob. *Sat.* I 9 with nn.; so we find Janus standing first in the *devotio* of Decius (Liv. VIII 9) *Jane, Juppiter, Mars, pater;* and in the *Acta Arvalium* (Wilmanns II p. 297) *Janus, Juppiter, Mars, Juno.* On the distinction between Janus and Juppiter Augustine cites Varro (*C. D.* VII 8) *penes Janum sunt prima, penes Jovem summa.*

**ab eundo nomen**: i.e. *ianus* or *eanus*, as we read in Macrob. *Sat.* I 9. 11 *Janumque ab eundo dictum, quod mundus semper eat, dum in orbem volvitur et ex se initium faciens in se refertur: unde et Cornificius Etymorum libro tertio, 'Cicero', inquit 'non Janum sed Eanum nominat ab eundo'.* This is the etymology given by L. and S.; I prefer the more common one supported by Preller and Buttmann, which regards it as another form of *Dianus*, connected with Ζεύς and *dies* (see below on *Diana*); but they seem to be mistaken in attributing this derivation to Nigidius Figulus (ap. Macrob. l. c.) *pronuntiavit N. Apollinem esse Janum Dianamque Janam, apposita d littera quae saepe i litterae causa decoris apponitur, ut 'reditur' ...et similia. Janum quidam solem demonstrari volunt, et ideo geminum, quasi utriusque januae caelestis potentem, qui exoriens aperiat diem, occidens claudat.* Nigidius here distinctly says the *d* is otiose and added merely for the sake of euphony, so that he may very well have concurred with C.'s derivation. The chief objection to this latter is that it would make the original attribute of the deity simply to preside over doors, whereas he is the old Latin god of the sky, styled *deorum deus* in the ancient hymns of the Salii, and the learned augur Messala, who was consul 53 B. C., writes of Janus as the god *qui cuncta fingit eademque regit, aquae terraeque vim ac naturam gravem atque pronam in profundum dilabentem, ignis atque animae levem in immensum in sublime fugientem, copulavit circumdato caelo* (Macrob. l. c.).

**transitio**: this appears to be the only instance of the concrete use.

**jani**: 'archways' cf. Suet. *Dom.* 13 *janos arcusque cum quadrigis exstruxit*, *Octav.* 31 *Pompeii statuam marmoreo jano superposuit;* especially used of the Roman Exchange, the arcade with four arches in the forum, where merchants used to meet. *Janus* is distinguished from *arcus* by its length, from *fornix* as being essentially pervious. Preller thinks it was named from the god, as symbolic of the vault of heaven; but it seems better to regard it, with Buttmann, as a perfectly distinct word, derived (as C. says) from *ire*, and merely associated with the god at first from similarity of sound; afterwards etymologists discovered such connecting links as we read in the passages cited above from Macrobius.

**in liminibus profanarum aedium**: the *janua* was properly the front door (*anticum*) of private houses, see Vitruv. VI 7, Serv. *Aen.* I 449; not of temples, for which *valvae* is the regular term, see 2 *Verr.* I 61, IV 94, 124, *p. Domo* 121, *Div.* I 74, Caesar *B. C.* 105; Virgil however speaks of *atri janua Ditis;* and Pliny (*Ep.* II 17. 5 &c.) and Horace (*Sat.* II 6. 112) use *valvae* of folding doors in private houses.

**nam Vestae nomen a Graecis**: I think it is unnecessary to change *nam* into *jam* (as Ba.). *Nam* implies that what follows is expected: and here Cic. had already mentioned the beginning and the end as of prime importance: he has finished with Janus, and introduces Vesta as presiding over the end. 'So much for Janus; as for Vesta she is a Greek goddess'. On the elliptical use of *nam* in lists of names cf. n. on I 27,

Holden on *Off.* II 47, and Dumesnil on *Leg.* II 26. C. repeats here what he had said *Leg.* II 29, that *Vesta* is a borrowed word, but it is merely an off-shoot of the same root VAS, to which both *uro* and αὔω belong. Curtius in his later editions distinguishes this root from VAS 'to dwell' from which ἄστυ is derived. Another etymology is given by Ovid *Fast.* VI 399 *stat vi terra sua, vi stando Vesta vocatur,* which reminds one of that of Ἑστία from ἑστάναι in Cornutus.

**in ea dea omnis sacrificatio extrema est**=*extrema pars sacrificationis est in ejus deae veneratione,* Sch. The rare word *sacr.* is also found Macrob. *Sat.* I 7 § 35, Tertull. *Idol.* 9. The evidence in favour of religious services being closed with the name of Vesta, as they commenced with that of Janus, is not very strong, see Preller p. 546. On the other hand the proverb ἀφ' Ἑστίας ἄρχεσθαι (*Euthyph.* p. 3, *Vesp.* 842 with *schol.*, *Cratyl.* 401 βούλει οὖν ἀφ' Ἑστίας ἀρχώμεθα κατὰ τὸν νόμον, and a little below τὸ γὰρ πρὸ πάντων θεῶν τῇ Ἑστίᾳ πρώτῃ προθύειν εἰκὸς ἐκείνους οἵ τινες τὴν πάντων οὐσίαν Ἑστίαν ἐπωνόμασαν) shows the usage in the classical time of Greece. In the Homeric hymn XIX 6 she is worshipped last as well as first, οὐ γὰρ ἄτερ σοῦ εἰλαπίναι θνητοῖσιν, ἵν' οὐ πρώτῃ πυμάτῃ τε Ἱστίῃ ἀρχόμενος σπένδει μελιηδέα οἶνον; and so Cornutus 28 μυθεύεται πρώτη καὶ ἐσχάτη γενέσθαι τῷ εἰς ταύτην (as the earth) ἀναλύεσθαι τὰ ἀπ' αὐτῆς γινόμενα καὶ ἐξ αὐτῆς ξυνίστασθαι· καθὸ κἂν ταῖς θυσίαις οἱ Ἕλληνες ἀπὸ πρώτης τε αὐτῆς ἤρχοντο καὶ εἰς ἐσχάτην αὐτὴν κατέπαυον. Ovid (*Fast.* VI 303) follows Plato, *inde precando praefamur Vestam, quae loca prima tenet,* which shows at any rate that the idea of the end being sacred to Vesta was dying out.

§ 68. **Penates**: Curtius connects the gods of the store (*penus*) with *pascor pabulum,* and refers *penitus penetro* to the same root. Servius (on *Aen.* XI 211) calls the *focus* the *ara Penatium,* and Virgil (*Aen.* I 704) uses the phrase *adolere Penates* in the sense of keeping up the fire: see Preller p. 532 foll. and Gell. IV 1.

**penetrales vocantur**: cf. Catull. 69 *ad quem tum properans ferventior undique pubes Graeca penetrales deseruere deos,* Tac. *Ann.* II 10 *penetrales Germaniae deos,* Seneca *Oed.* 265, *Phoen.* 340.

**Apollo**: on the introduction of his worship from Cumae into Rome, see Preller (pp. 130 and 266), who connects it with the admission of the Sibylline books under Tarquin. The oracle at Delphi was consulted by the Romans in the early years of the republic. Apollo was known to them from the beginning as the god of healing: his first temple was built 429 B.C.

**Solem esse volunt**: so Eurip. *Phaeth.* fr. 775 ὦ καλλιφεγγὲς Ἥλι' ὥς μ' ἀπώλεσας καὶ τόνδ'· Ἀπόλλω δ' ἐν βροτοῖς σ' ὀρθῶς καλεῖ, ὅστις τὰ σιγῶντ' ὀνόματ' οἶδε δαιμόνων, and Plato *Crat.* 405, who derives the name Ἀπόλλων from ἅμα πολῶν signifying τὴν ὁμοῦ πόλησιν καὶ περὶ τὸν οὐρανὸν...καὶ περὶ τὴν ἐν τῇ ᾠδῇ ἁρμονίαν...ὅτι ταῦτα πάντα, ὥς φασιν οἱ κομψοὶ περὶ μουσικὴν καὶ ἀστρονομίαν (i.e. the Pythagoreans) ἁρμονίᾳ τινὶ πολεῖ ἅμα πάντα. The philosophers were probably right in identifying Apollo with the god of

light, but his various secondary attributes had obscured his original character in the common mind, and the actual Sun-god Helios was quite distinct from him. Macrobius *Sat.* I 17 cites the opinions of the principal Stoics on the subject and proves at length that Apollo was originally identical with the Sun, both from his epithets and characteristics. See also Cornutus c. 32, Heracl. *All.* Gale p. 416 foll.

**Diana**: originally a feminine form of Janus (Dianus) connected with *dies*, *divus*, Ζεύς, see Varro *R. R.* I 37 § 3 *nunquamne rure audisti octavo (die ante) Janam et crescentem et contra senescentem*, and hence the goddess of the moon. She became identified with the Greek Artemis and associated with the worship of Apollo about the beginning of the 4th century B. C. cf. Catullus XXXIV 13 *tu Lucina dolentibus Juno dicta puerperis: tu potens Trivia et notho es dicta lumine Luna*, and Hor. *C. S.* where Apollo is addressed as *alme Sol curru nitido diem qui promis et condis*, and Diana as *siderum regina bicornis*. On the identity of Artemis and the moon see Aesch. fr. 158 ἀστερωπὸν ὄμμα Λητῴας κόρης, and Callim. fr. 48, where the poet blames those who separate Apollo from the Sun and Persephone from Artemis.

**cum Sol dictus sit—Luna nominata sit**: 'the Sun being so called because he is unique in magnitude, the Moon from her shining'. I am rather tempted to make this an independent sentence, reading *cumque* for *cum* and *nominata est* for *nom. sit.*

**Sol quia solus**: cf. III 54. It is curious that this etymology, like that given for Saturnus, seems to have been borrowed from the Greek. Thus Macrobius *Sat.* I 17 § 7 *Chrysippus Apollinem* ὡς οὐχὶ τῶν πολλῶν καὶ φαύλων οὐσιῶν τοῦ πυρὸς ὄντα, *primam enim nominis litteram retinere significationem negandi;* ἢ ὅτι μόνος ἐστὶ καὶ οὐχὶ πολλοί, *nam et Latinitas eum, quia tantam claritudinem solus obtinuit, solem vocavit.* So Plut. *Delph.* p. 388, Clem. *Strom.* I p. 151 &c. Varro gives the same derivation. Wyttenbach, with whom Curtius agrees, connects it with σέλας. Sch. compares Goth. *sauil* 'sun'.

**Luna a lucendo**=*lucna*, like *penna*, *urna*; *Lucina* is a secondary adjectival formation.

**Lucinam in pariendo invocant**: by that constant confusion of the *cum hoc* or *post hoc* with the *propter hoc*, which characterizes so much of the old superstitions, especially in connexion with the moon, it was believed that the goddess who presided over the moon's changes was the goddess of birth; cf. Plut. *Symp.* 658 E λέγεται δὲ καὶ πρὸς εὐτοκίαν συνεργεῖν (ἡ σελήνη) ὅταν ᾖ διχόμηνος, ἀνέσει τῶν ὑγρῶν μαλθακωτέρας παρέχουσα τὰς ὠδῖνας· ὅθεν οἶμαι καὶ τὴν Ἄρτεμιν Λοχείαν καὶ Εἰλείθυιαν οὐκ οὖσαν ἑτέραν ἢ τὴν σελήνην, ὠνομάσθαι, Eur. *Hipp.* 166 τὰν εὔλοχον οὐρανίαν τόξων μεδέουσαν ἀΰτευν Ἄρτεμιν, Hor. *C. S.* 13 *rite maturos aperire partus lenis, Ilithyia, tuere matres, sive tu Lucina probas vocari, seu Genitalis.* Properly speaking however Εἰλείθυια was distinct from Artemis, and is sometimes represented as the daughter of Hera, the goddess of wedlock, or even

identified with her, see Preller *Gr. M.* p. 401 and p. 134 foll. The Latin poets mostly followed the Greeks in regarding Lucina as a name of Diana, see Ennius ap. Varro VII 16 *ut tibi Titanis Trivia dederit stirpem liberum*, V. *Ecl.* IV 10 *casta fave Lucina, tuus jam regnat Apollo:* but the Roman goddess of light, especially of the new moon, was Juno Lucina, worshipped by matrons at the *Matronalia* and invoked in child-birth, as in Plaut. *Aul.* IV 7, Ter. *Andr.* III 1. 15 *Juno Lucina fer opem*, *Adelph.* III 4. 41. On the other hand Menander represented Artemis as invoked by Greek women in similar circumstances (*Schol.* on Theocr. II 66).

**Luciferam** = Φωσφόρος, one of the names of Artemis, see Arist. *Lysist.* 443, *Thesm.* 865, *Iph. T.* 21.

**omnivaga**: this is not found elsewhere as an epithet for Diana, nor is it easy to suggest any corresponding Greek word, of which it might be a translation. The moon is *vaga luna* (Hor. *Sat.* I 8. 21), her chariot is *noctivagus Aen.* X 215, the sun *vagus sol* (Tib. IV 1. 76), the heaven itself is *solivagum* (Cic. *Tim.* c. 6); Pliny *N. H.* II 7 speaks of *Lunae multivagos flexus;* ['Venus is *volgivaga* Lucr. IV 1071' Swainson]. For the explanation we may compare that given in Cornutus 32 of Loxias, 'Apollo is so called because he traverses the zodiac obliquely', and that of Trivia in Varro *L. L.* VII 16, *quod Luna in caelo tribus viis movetur in altitudinem et latitudinem et longitudinem.*

**tamquam vagantibus**: *tamquam*, because *falso vocantur errantes* above § 51.

§ 69. **Diana dicta**: 'being called Diana'. The edd. have a full stop before *Diana*, which makes a very abrupt construction; perhaps *sed* has been lost before *Diana*, cf. § 66 *sed Junonem.*

**septem aut novem**: more correctly Virgil, *Ecl.* IV 60 *matri longa decem tulerunt fastidia menses*, i.e. lunar months making 280 days; the philosophers however had various speculations on the subject; which may be found in *Plac. Phil.* V 18, Gell. III 16, where see nn. Gellius states it as the received opinion *gigni hominem septimo rarenter, numquam octavo, saepe nono, saepius numero decimo mense;* cf. also Diog. L. VIII 29 (on Pythagoras), Arist. *Hist. An.* VII 4, Plin. *N. H.* VII 5, *Digest* XXXVIII 16. 3 § 11.

**ut plerumque**: sc. *fit*, cf. Draeg. § 116.

**mensa spatia**: this etymology is approved by Curtius on μήν, μήνη, and Max Müller *Lect.* I 6.

**concinneque**: cited by Madv. *Fin.* III 73 as an ex. of the transitional use of *que;* cf. below § 127 *cervaeque.*

**Timaeus**: banished from Tauromenium in Sicily by Agathocles about 310 B.C., passed 50 years of exile at Athens, where he wrote his history of Sicily, extending from the earliest period to his own date: much blamed by Polybius for the unscientific and unpractical nature of his history, for his superstition, want of judgment, unfairness, and affectation of style. Longinus agrees in condemning the style (*Sublim.* 4 ὑπὸ ἔρωτος τοῦ ξένας νοήσεις ἀεὶ κινεῖν πολλάκις ἐκπίπτων εἰς τὸ παιδαριωδέστατον) and quotes

from it exx. of frigidity (τὸ ψυχρόν), not unlike that in the text, e.g. 'it was natural that the instrument of divine vengeance on the mutilators of the Hermae should be Hermocrates'. Cic. praises his learning and copiousness (*Orat.* II 58), but is not an admirer of the Asiatic style which he practised, cf. *Brut.* 325 *genera Asiaticae dictionis duo sunt, unum sententiosum et argutum, sententiis non tam gravibus et severis quam concinnis et venustis, qualis in historia Timaeus.* Of Hegesias, a professor of the same Asiatic school, to whom the saying in the text is attributed by Plutarch (*Alex.* 3) Cic. speaks even more severely (*Brut.* 206) *quid est tam fractum, tam minutum, tam in ipsa, quam tamen consequitur, concinnitate puerile?* These passages prove that *concinne* need not be taken to imply very high praise, any more than our 'neat saying' or 'pretty conceit'. Plutarch, in telling the story, himself outdoes the frigidity of Hegesias, Ἡγ. ἐπιπεφώνηκεν ἐπιφώνημα κατασβέσαι τὴν πυρκαϊὰν ἐκείνην ὑπὸ ψυχρίας δυνάμενον· εἰκότως γὰρ ἔφη καταφλεχθῆναι τὸν νεὼν τῆς Ἀρτέμιδος ἀσχολουμένης περὶ τὴν Ἀλεξάνδρου μαίωσιν.

**partu Olympiadis**: the Dat. *Olympiadi* might have seemed more natural with *adesse*, but *partus* is often used with a Genitive of the mother in this sense, e.g. *me Romae tenuit partus Tulliae, Fam.* VI 18.

**Venus**: Arnobius (III 33) follows C. in his absurd derivation: it is probably connected with *venia* 'grace', 'favour', *veneror*, Sans. *vankh* 'wish'. Varro *L. L.* V 62 derives it from *vincio vieo.*

**ex ea venustas**: sc. *nominatur*, see Index under *Ellipsis.*

Ch. XXVIII § 70. **videtisne—levitatis**: the account here given of the pagan mythology was eagerly caught up by Christian writers, and the passage itself is quoted by Aug. *C. D.* IV 30, Lact. I 17.

**ut a physicis rebus—tracta ratio sit ad fictos deos**: 'how this imaginary pantheon was developed out of a good and useful philosophy of nature', lit. 'how men (the course of thought) proceeded from one to the other'.

**turbulentos**: 'confused', 'crazy'.

**aniles**: see I 55 n. on *aniculis.*

**formae deorum**: the Stoics are laughed at (I 24) for believing in round gods, but really they assign no form to their highest divinity, the all pervading ether. Thus we are expressly told that Posidonius held God to be πνεῦμα νοερὸν καὶ πυρῶδες, οὐκ ἔχον μὲν μορφήν, μεταβάλλον δὲ εἰς ὃ βούλεται καὶ συνεξομοιούμενον πᾶσιν (Stob. *Ecl.* I 2); so that Lactantius is right (*de Ira* 18) in saying *Stoici negant habere ullam formam Deum;* see Philod. p. 84 Gomp. 'the Stoics do not worship the same gods as others', ἀνθρωποειδεῖς γὰρ οὐ νομίζουσιν, ἀλλ' ἀέρας καὶ πνεύματα καὶ αἰθέρας. On what follows see the Epicurean speaker I 42, here agreeing with the Stoic.

**noti sunt**: cf. Juvenal I 7 *nota magis nulli domus est sua quam mihi lucus Martis* &c.

**omniaque traducta—imbecillitatis humanae**: it seems best to take *noti sunt* as supplying the predicate for the whole sentence, and to under-

stand *traducta* as a simple participle in agreement with *omnia*. For the thought cf. I 45 *neque ira neque gratia teneri, quod quae talia essent imbecilla essent omnia.*

**et perturbatis animis inducuntur**: *et* is taken up by *nec bellis caruerunt*. **pert. an.** Abl. of Quality, cf. n. on *soliditate* I 49. We have the same use of *induco* 'to bring on the stage' below § 73.

**cupiditates, aegritudines, iracundias**: the Stoics distinguished four kinds of vicious affection, *Fin.* III 35, *Tusc.* IV 11 *est igitur Zenonis haec definitio, ut perturbatio sit, quod πάθος ille dicit, aversa a recta ratione contra naturam animi commotio...partes autem perturbationum volunt ex duobus opinatis bonis nasci et ex duobus opinatis malis; ita esse quattuor, ex bonis libidinem et laetitiam, ut sit laetitia praesentium bonorum, libido futurorum, ex malis metum et aegritudinem nasci censent, metum futuris, aegritudinem praesentibus.* Under each head are included various subordinate passions, e.g. *libidini (subjecta sunt) ira, odium, discordia* &c. *l. c.* 16. Thus the gods are represented as subject to every kind of passion except fear.

**ut apud Homerum**: sc. *inducuntur*, cf. *ut plerumque* § 69.

**ut—bella gesserunt**: an abbreviated expression for *ut inducuntur cum Titanis bella gerentes.* For a similar abbreviation cf. § 60 *ut cum fruges.* Gruter proposed to omit *cum* before *duo*, and to read *defenderunt* for *defenderent.*

**Titanis**: the Latinized forms are frequent in the early writers e.g. Ennius *Ann.* I fr. 25 Vahl. *cum saevo obsidio magnus Titanus premebat*, *Euhem.* fr. 4 *qui Titani vocantur*, fr. 6 *Titanum vicisse*, Naev. ap. Prisc. VI p. 679 *Titani* N. Pl., also in Plaut. Pers. I 1. 26; *Titano* Abl. S. Varro *L. L.* VII 16. The preceding **cum** is of course the preposition. The wars of the gods at Troy (*Il.* XX 67 foll.) as well as those against the Titans were allegorized by Cleanthes in his Θεομαχία and περὶ Γιγάντων (Zell. IV p. 328); cf. Flack *Glossen* p. 93 foll., Heracl. *All.* p. 477 Gale, who gives both a physical and ethical interpretation. Lucretius alludes to such allegories V 117.

**creduntur stultissime** = *stultissimum est credere*, cf. below § 143 *latent utiliter*, and Madv. on *Fin.* IV 63 *acute putant*, and *Advers.* II 507.

B e. *One Divine Being is to be worshipped under these various forms, in holiness and purity, avoiding all superstition.* §§ 71, 72.

§ 71. **deus pertinens per naturam**: see I 36 n., II 24, III 64, Heinze pp. 85, 93 foll.

**poterunt intellegi**: we should have expected the Sing. but the number is changed to suit the clause in apposition.

**quos deos**: I am disposed to retain this, the reading of the best MSS. The general sense will then be 'the previous discussion has shown what is the nature of these subordinate and partial deities; that they are not distinct and opposed personalities, but the varied activity of the one God disguised under many names. It has shown also how they have come

to be named as they are: and it is these deities, i.e. deities thus understood, that we ought to worship'. This seems to me to agree better with the context than Keil's emendation *hoc eos;* for there is no occasion here to insist on the employment of the popular names, but rather to guard against the abuse to which this might lead. For the change from the personal construction *poterunt intellegi* to the impersonal (*poterit*) *intellegi*, cf. *Cato* 63 *consurrexisse dicuntur...dixisse quendam.*

**cultus optimus**: cf. *Off.* II 11 *deos placatos pietas efficit et sanctitas; Leg.* II 22 *impius ne audeto placare donis iram deorum;* Sen. *Ep.* 95 § 47 *deum colit qui novit...primus est deorum cultus deos credere; deinde reddere illis majestatem suam, reddere bonitatem... Vis deos propitiare? bonus esto. Satis illos coluit quisquis imitatus est?* Hor. *Od.* III 23; Pers. II 71, Plin. *Paneg.* 3, Xen. *Mem.* I 3 § 3; also the Christian Minucius 32 *litabilis hostia bonus animus et pura mens et sincera consciehtia. Igitur qui innocentiam colit Deo supplicat, qui justitiam, Deo libat, qui fraudibus abstinet, propitiat Deum;* and Lact. VI *de Vero Cultu.*

**superstitionem a religione separaverunt**: 'In the later age of heathendom the complaint of the spread of superstition is frequently repeated. Nothing however is more vague, indistinct or capricious than the δεισιδαιμονία of the Greeks and the *superstitio* of the Romans. No one drew or was capable of drawing the line between this erroneous excess of the religious sentiment, and real religiousness. The Romans of the early period had certainly a simple criterion. They deemed a religious man to be one who adhered to the legal traditions in his relation to the Gods, a superstitious man to be one who gave himself up to strange rites or the worship of strange Gods. But this distinction was no longer available in the earlier times of the Caesars, when there were few who were prepared either on the one side to take up the cause of the entire hereditary cultus with its endless confusion of Gods, or on the other side, to reject every outlandish worship on account of its foreign origin....So the attempt was made to fix the relation between religion and superstition upon other grounds. Thus Varro held that the superstitious were those who feared the Gods as enemies, the religious those who loved them as parents (Aug. *C. D.* VI 9). Theophrastus (*Char.* 16) had previously defined superstition as δειλία πρὸς τὸ δαιμόνιον, and Plutarch's whole treatment (in his tract on Superstition and Atheism) hinges on the sentiment of anxiety and terror of the wrath of the Gods and the punishments of the world below, as evidenced by those whom it haunted. Maximus of Tyre (*Diss.* XX 6) takes much the same view ὁ μὲν εὐσεβὴς φίλος θεῷ, ὁ δὲ δεισιδαίμων κόλαξ θεοῦ, καὶ μακάριος εὐσεβὴς φίλος θεοῦ δυστυχὴς δὲ ὁ δεισιδαίμων' (altered from Döllinger II 170 foll.). The older Roman view is given by Festus p. 289 *religiosi dicuntur qui faciendarum praetermittendarumque rerum divinarum secundum morem civitatis dilectum habent nec se superstitionibus implicant;* Cic. *Leg.* II 19 (the law against superstition) *separatim nemo habessit deos, neve novos neve advenas nisi publice adscitos: privatim colunto quos rite a patribus cultos acceperint;* Virg.

*Aen.* VIII 187 *vana superstitio veterumque ignara deorum;* Plut. *Marc.* 5 καὶ τὴν ἐν οὕτω μικροῖς ἀκρίβειαν φυλάττοντες οὐδεμίᾳ προσεμίγνυσαν δεισιδαιμονίᾳ, τῷ μηδὲν ἀλλάττειν μηδὲ παρεκβαίνειν τῶν πατρίων. Hence Christianity is a *prava superstitio* with Pliny (*Ep.* X 97), an *exitiabilis superstitio* with Tacitus (*Ann.* XV 44). For other exx. cf. Liv. XXXIX 15 (the Bacchanalia), Val. Max. I 3, Hor. *Sat.* II 3 281—295, Pers. II 31. Cicero combines the old and new view of superstition. A religion becomes superstitious either by the introduction of new and strange rites (*N. D.* III 5) or from its arousing irrational fears (*N. D.* I 117 *non modo superstitionem tollunt, in qua inest timor inanis deorum, sed etiam religionem, quae deorum cultu pio continetur*) or from its connexion with immorality (*Cluent.* 194 *neque intelligit pietate et religione et justis precibus deorum mentes, non contaminata superstitione neque ad scelus perficiendum caesis hostiis posse placari*) or its contradicting the teaching of science (*Div.* II 148 *ut religio propaganda est, quae est juncta cum cognitione naturae, sic superstitionis stirpes omnes ejiciendae*, and the whole passage). Seneca takes the new view, *Clem.* II 5 *religio deos colit, superstitio violat; Ep.* 123 § 16 *superstitio error insanus est: amandos timet, quos colit violat. Quid enim interest utrum deos neges an infames?* Lactantius makes the difference depend on the object of worship *religio veri cultus est, superstitio falsi: et omnino quid colas interest, non quem ad modum colas aut quid precere* (IV 28 where he criticizes Cicero's view). See on the general subject August. *Doctr. Christ.* II 20 foll., Aquinas *Sec. Sec. qu.* 92, Tholuck *Moral Influence of Heathenism* pp. 41, 71 foll., J. Taylor Serm. 9 (on Godly Fear), Friedländer *Sitt. Roms* c. xi.

§ 72. **qui precabantur—qui autem retractarent**: a remarkable combination of the two Moods, to express the same conception, the only difference being that the Ind. speaks definitely of 'those who used to pray', and the Subj. indefinitely of 'such as anxiously repeated their religious observances'; see above § 44 (*Aristoteles*) *omnia quae moventur aut natura moveri censuit aut... quae autem natura moverentur haec aut deorsum aut in sublime ferri*, n. I 101 *nullam beluam nisi ob aliquam utilitatem, quam ex ea caperent, consecraverunt*, and n. on II 33 *quae alantur*, 118 *quod consumat.* This use of the Subj. is closely allied to the hypothetical use, of which we have had examples above §§ 12, 44 *qui videat*, and below § 76 *qui concedant* (which last is followed, like the present, by an Ind. in the apodosis, *iis fatendum est*).

**totos dies precabantur**: on the superstitious feeling with which the ancients regarded the death of children before their parents, see *Tusc.* I 93, Plaut. *Asin.* I 2, and Mayor on Juv. X 241. [Menage on Diog. L. V 12 quotes from the Digest to show that the Roman lawyers, when contemplating the possibility of a child dying before the parents, avert the omen with a *quod abominor.* J. E. B. M.]

**superstitiosus**: various attempts have been made to explain the meaning of this word from its etymology. Thus Serv. on *Aen.* VIII 187 *superstitio est timor superfluus et delirus: aut ab aniculis dicta superstitio quia*

*multae superstites propter aetatem delirant: aut secundum Lucretium* I 66 (*horribili super aspectu mortalibus instans*) *superstitio est superstantium rerum, id est caelestium et divinarum quae super nos stant, inanis et superfluus timor.* L. and S. consider it to denote originally 'a standing still over or by a thing; hence amazement, wonder, dread': Grimm *D. M.* p. 1059 compares it to *aberglaube* (*über-glaube*) implying a persistent holding to extravagant beliefs which were abandoned by men of sense: Nettleship *J. of Phil.* VI p. 98 thinks that it meant originally 'being present at (compare *superstes* in the sense of 'witness') and hence knowledge of a thing or pondering over a thing'. He quotes passages in which *superstitiosus* seems to imply prophetic knowledge, as Plaut. *Amph.* I 1. 170 *illic homo superstitiosus est vates; Curc.* III 1. 27 *superstitiosus hic quidem est: vera praedicat; Rudens* IV 4. 94 *quid si ista aut superstitiosa aut ariola est atque omnia quicquid insit, vera dicit;* Ennius *Trag.* 79 Vahl. *missa sum superstitiosis ariolationibus;* Poet. ap. Cic. *Div.* II 115 *sancte Apollo, qui umbilicum certum terrarum obtines, unde superstitiosa primum saeva evasit vox foras.* He also refers to the use of *superstitio* in *Div.* II 129, *Har. Resp.* 12, *p. Domo* 105, *Aen.* XII 817, as showing that it connoted two ideas 'power of foresight and anxious reflexion'; and cites the Gr. ἐπίσταμαι as illustrating the etymology suggested. I must confess I prefer to any of these the 3rd explanation given by Lact. IV 28. After condemning C.'s as *inepta*, he continues *superstitiosi autem vocantur, non qui filios suos superstites optant* (*omnes enim optamus*), *sed aut ii qui superstitem memoriam defunctorum colunt, aut qui parentibus suis superstites colebant imagines eorum domi tamquam deos Penates.* The same origin of superstition is asserted in *Wisdom* XIV 15 'a father afflicted with untimely mourning, when he hath made an image of his child soon taken away, now honoureth him as a god, which was then a dead man, and delivered to those that were under him ceremonies and sacrifices'. This doctrine of 'animism', as it is called by Tylor, Herbert Spencer and others, evidently had a firm hold of the early Romans, as shown in their worship of the *Lares* and *divi Manes*, in the *Novendiale*, *Feralia* and *Parentalia*, cf. Cic. *Leg.* II 55, 57, *Lael.* 13 (*nostri majores*) *qui mortuis tam religiosa jura tribuerunt*, and the saying of Cato in Plut. vol. III p. 411 Didot 'the proper sacrifices to parents are not lambs or kids, but the tears of enemies'. With regard to the actual formation of the word Nigidius Figulus ap. Gell. IV 9 maintains that the termination *-osus* always implies a vicious excess, as in the words *vinosus*, *mulierosus*, *nummosus*. Gellius adds *verbosus*, *morosus*, *famosus*, *gratiosus*, but also mentions exceptions, such as *victoriosus*, *formosus;* and a glance at the list in Roby *Gr.* § 813 is enough to show that there is really no special ethical character attaching to adjectives of this formation. Still there is the fact that one who spoke the language had such a feeling about this class of words, and there can be no doubt as to the particular word *superstitiosus*, that it was used of one infected to an excessive degree with *superstitio*, which itself denotes 1st the act, and 2nd the quality, of the *superstes*, i.e. of the man whose

function it is, as *superstes*, 'the survivor' (lit. the friend who bends over the dying man: or had *supersto* originally the force of *supersum?* cf. *præsto*), to do proper honours to the dead and carry out his wishes &c. One who was to an excessive degree occupied with the thought of the dead and was held to be in close intercourse with the unseen world was *superstitiosus*, either a necromancer and wizard, or a foolish believer in ghosts, according to the degree of enlightenment in surrounding society.

**religiosi ex relegendo**: C.'s derivation is supported by the old verse preserved by Gellius *l. c.* *religentem esse oportet, religiosum nefas*, and is favoured by Curtius s. v. λέγω, who compares θεῶν ὄπιν οὐκ ἀλέγοντες (*Il.* XVI 388); but here too Lactantius (IV 28) seems to me right, *nomen religionis a vinculo pietatis esse deductum, quod hominem sibi Deus religaverit et pietate constrinxerit...melius ergo (quam Cicero) id nomen Lucretius interpretatus est, quia ait religionum se nodos exsolvere* (I 932). See Munro on Lucr. I 109, who cites *de Domo* 105 *nisi etiam muliebribus religionibus te implicuisses*, as proving that C. himself could not help connecting the word with the idea of obligation: so we find *religione obstringere* (2 *Phil.* 83); *solvi religione* (*Caecina* 98); *religionibus susceptis impeditur* (*in Pis.* 58); *domum religione obligare* (*p. Domo* 106, 124); *exsolvere religione* Liv. III 20; *Numa religionibus populum devinxit* Tac. *Ann.* III 26. Max Müller (*Hibbert Lectures* p. 11) is inclined to prefer C.'s etymology on the ground that there is no trace of the religious sense in the use of the verb *religare* (except in Lact. l. c.); but it may be replied that neither is there in *relegere*, except in passages which are intended to prove the connexion. With these exceptions we do not get nearer than *Trojani belli scriptorem relegi* Hor. *Epp.* I 2. 2, *janua difficilis filo est inventa relecto* Ov. *Met.* VIII 173, *egressi relegunt campos* Val. Fl. VIII 121.

**elegantes ex eligendo**: Stamm rightly says (p. 35) that this clause, which is omitted by some MSS and edd. is needed to justify the following *omnibus*, which could hardly be used of less than three clauses. *Elegans* seems to show that the root *leg* had two conjugational forms, as the root *lig* must have had if we derive *religio* from it: M. Müll. l. c. compares *lictor* and the double forms implied in *opinio* and *rebellio* by the side of *opinari*, *rebellari*. For the sense cf. *electe Invent.* I 49, *electissima verba Fin.* III 26, *ad Herenn.* IV 36, and so often *lectissima* 'dainty'.

**diligentes**: *diligo* is 'to prefer', hence 'to care for'; and *diligens* 'careful', 'attentive'.

## C. Providential Government of the Universe §§ 73—153.

### *a. Introductory. The sneers of Epicurus are founded on ignorance (1); division of subject (2) §§ 73—75.*

Ch. XXIX § 73. **proximum est ut**: Madv. § 373.

**providentia**: Plato according to Favorinus (Laert. III 19) was the first to speak of θεοῦ πρόνοιαν (as in *Tim.* 30 and 44), but we have Eurip. *Orest.*

1179 *θεοῦ λέγεις πρόνοιαν*, *Phoeniss.* 640 *ὄνομα πατὴρ ἔθετό σοι θείᾳ προνοίᾳ νεικέων ἐπώνυμον*, Xen. *Mem.* I 4. 6 *οὐ δοκεῖ σοι καὶ τόδε προνοίας ἔργον τὸ βλεφάροις τὴν ὄψιν θυρῶσαι.* It formed the subject of distinct treatises by Chrysippus (Diog. L. VII 138, Gell. VI 1 foll.), Panaetius, referred to by Cic. *Att.* XIII 8, *velim mihi mittas Παναιτίου περὶ προνοίας*, Philo, still extant in an Armenian translation, and Seneca. Cicero probably took this part of his treatise from Posidonius *περὶ θεῶν* bk. 3 (Diog. VII 138). Among Christian writers who have written on the subject may be mentioned Theodoret, and Salvianus *de Gubernatione Dei.*

**magnus sane locus**: most MSS add **est**, for the omission of which Allen compares Div. II 3 *his libris adnumerandi sunt sex de republica... Magnus locus philosophiaeque proprius, a Platone tractatus uberrime*, where Giese cites *Orat.* II 79, *Orator* 52, *Lael.* 79, *Cato* 14, *Off.* II 73.

**vexatus**: 'a question much debated by your school'.

**vestra solum legitis**: on the narrow training of the Epicureans see I 72 n. and *Piso* 70 *literas fere neglegere.* [And especially Seneca *Ep.* 79 § 15. J. E. B. M.]

**solum**: their own writings were only read amongst themselves, *Tusc.* II 8 *Epicurum et Metrodorum non fere praeter suos quisquam in manus sumit.*

**incognita**: see n. on *inerrans* § 54.

**hesterno die**: here and in III 18 *omnia quae a te nudius tertius dicta sunt*, C. writes as if he had broken up the treatise into three distinct conversations held on three successive days, as the five books of Tusculan Disputations are supposed to occupy five days. It is one of the many signs that the book was published without having undergone the author's final revision.

**anum fatidicam**: see I 18.

**eo errore—quia**: the more regular construction would have been either *in quo errabas quia*, or *eo errore dixisti ut existimares.*

**praecise**: 'it is an elliptical expression'. Wytt. cites *Herenn.* IV 31 *praecisio est cum, dictis quibusdam, reliquum relinquitur incohatum in auditoris judicio;* cf. *Cato* 67 *brevi praecidam. Praecisus* itself is not found in this sense before Quintil. V 2 § 17 *qui praecisis conclusionibus obscuri, Sallustium atque Thucydidem superant.*

§ 74. **illud 'Areopagi'**: 'to complete the meaning we should want that further term, viz. the council of the Areopagus'. Sch. refers to Ahrens *de Athen. Statu* 1829 Götting., and Philippi *Der Areopag. u. d. Epheten* as proving that this council had more authority in C.'s time than it had had since the time of Pericles. We learn from Gellius XII 7 that Dolabella when proconsul of Asia referred a difficult case to the Areopagus *ut ad judices graviores exercitatioresque*, cf. *Att.* I 14 § 5 *senatus Ἄρειος Πάγος, nihil constantius, nihil severius.*

**arbitrato**: this appears to be the only ex. of the Act. form after the time of Plautus, but *arbitror* is found with Pass. signification *Att.* I 11 § 2. Caesar *B. C.* III 6 § 3. [See Madv. *Opusc.* II 241. J. E. B. M.]

**salem quo caret vestra natio**: cf. above § 46 *minime resipiens patriam*, and I 123 *non tam faceto. Natio* is used contemptuously, 'your tribe', 'your set', see n. on *gens* I 89. For *salem* see *Fin.* I 9 *cum multa venustate et omni sale Lucilius*, Plin. *N. H.* XXXI 41 *ergo hercule vita humanior sine sale non quit degere: adeoque necessarium elementum est ut transierit intellectus ad voluptatem animi quoque. Nam ita sales appellantur, omnisque vitae lepos et summa hilaritas laborumque requies non alio magis vocabulo constat;* Plin. *Ep.* III 21 § 1 with Mayor's n. Cic. classifies the different *sales* in *Orator* 87; in *Orat.* II 216 he says *nullam esse artem salis.*

**hoc in te unum convenit**: unless we adopt Madv.'s emendation, for which see Critical Notes, I am disposed to take this as Wytt., 'does it apply to you individually'. In any case it seems to me more natural to oppose *unum* to *reliquos*, than to take it, as most edd., with *limatum.*

**moribus domesticis**: 'by our national habits'. Cf. *R. P.* II 29 *facile patior non esse nos transmarinis nec importatis artibus eruditos, sed genuinis domesticisque virtutibus.*

**limatum**: (*lima* 'a file'), cf. *Orat.* I 180 *vir oratione limatus.*

**sine arte, sine litteris**: cf. I 58, 72, 85, 89, *Tusc.* II 45, III 50.

**insultantem**: see I 18 *fidenter* n., 73 *vexat contumeliis*, 92 *omnesne delirare*, and foll.

Ch. XXX § 75. **constitutas**: not 'created', but 'set in order'. For the three arguments see Zeller IV p. 141.

**ab animantibus principiis eam esse generatam**: Sch. who reads *ea generata* in common with most edd., objects to the reading of the MSS on the ground that the *sentiens natura* must be identical with the *animantia principia*, the λόγοι σπερματικοί, which pervade the universe. But though this is the usual way of speaking among the Stoics, yet we find other passages in which a distinction is made between the sentient nature of the universe and that to which its sentience is owing, viz. the divine spirit, the πνεῦμα ἑαυτὸ κινοῦν, cf. just below *deus omnem regit naturam; Acad.* II 119 (the Stoics hold) *hunc mundum esse sapientem, habere mentem, quae se et ipsum fabricata sit, et omnia moderetur, moveat, regat;* and above § 22 *mundus generat animantes compotesque rationis: animans est igitur mundus composque rationis;* where the argument resembles that of the present passage; for the sentience of nature is here too taken as a proof that it proceeds from a living principle. So in § 29, a distinction is drawn between *natura* and τὸ ἡγεμονικόν; see n. on *incohatis naturis* above § 33, for the narrower technical sense of φύσις, as the vegetative principle. Again we are told expressly that Posidonius (Zeller IV p. 143) distinguished between the action of the Deity and of nature, *Plac. Phil.* I 28 § 5 πρῶτον μὲν εἶναι τὸν Δία, δεύτερον δὲ τὴν φύσιν, τρίτην δὲ τὴν εἱμαρμένην, with which we may compare the language of Chrysippus (Plut. *Comm. N.* 36) ὅταν ἐκπύρωσις γένηται, μόνον ἄφθαρτον ὄντα τὸν Δία τῶν θεῶν ἀναχωρεῖν ἐπὶ τὴν Πρόνοιαν, εἶτα ὁμοῦ γενομένους ἐπὶ μιᾶς τῆς τοῦ αἰθέρος οὐσίας διατελεῖν ἀμφοτέρους. I think then that C. here uses *natura*

to express the ordinary course of nature, and that, in speaking of its being generated from living principles, he refers to the periodic regeneration of the world. In the cyclic conflagration the ordinary course of nature is suspended, the universe retires into its fiery seed, of which Diog. tells us (VII 136) *θεός ἐστιν ἄφθαρτος καὶ ἀγένητος, δημιουργὸς ὢν τῆς διακοσμήσεως, κατὰ χρόνων ποιὰς περιόδους ἀναλίσκων εἰς ἑαυτὸν τὴν ἅπασαν οὐσίαν καὶ πάλιν ἐξ ἑαυτοῦ γεννῶν*. So we read (*Plac. Phil.* I 7) the Stoics define God as *πῦρ τεχνικὸν ὁδῷ βαδίζον ἐπὶ γενέσει κόσμου, ἐμπεριειληφός τε πάντας τοὺς σπερματικοὺς λόγους*, while nature itself is defined as working in accordance with these, *ἔστι δὲ φύσις ἕξις ἐξ αὑτῆς κινουμένη κατὰ σπερματικοὺς λόγους* (Diog. VII 148). Sch. speaks of this clause as being out of place here, since Providence is shown in the government, but not in the formation of the world. There seems no ground for such a limitation; and as a matter of fact C. has already divided his subject into these two parts, *initio constitutas, omni tempore administrari.* Epicurus had taught that the world was produced by the fortuitous movements of dead atoms: Balbus maintains in opposition to this that it is due to *animantia principia;* cf. below § 89 *hi dubitant de mundo, casune ipse sit effectus aut necessitate aliqua an ratione ac mente divina;* 90 *non solum habitatorem sed etiam...architectum tanti operis*, also §§ 93, 95, 115. We need not at present define the latter more closely: that which is of the nature of soul is, as Plato is so fond of insisting, essentially prior to that which is without soul.

C b. *Providential Government inferred from the consideration of the Divine nature* §§ 76—80. (1) *It is a part of our idea of God that he should be active, and active in the noblest way, i. e. in regard to the noblest object, which is the universe* § 76; (2) *if he is not so, then he must be inferior to some other power which rules the universe; but such inferiority contradicts the very definition of Deity, therefore he cannot be subject to any other power, therefore he must rule the universe himself* §§ 76, 77. (Cic. seems to have put the two last steps of the argument in the wrong order. We can hardly impute this to the carelessness of a scribe, as the words are quoted in the same order by Lact. I 5 and Salvianus *Gub.* I 1 § 4.)

§ 76. **Democritus simulacra, Epicurus imagines**: I have said (on I 49) that it seemed to me probable that some of the later Epicureans had adopted the more spiritual theism of Democritus. In this passage however I understand Cic. to be drawing a distinction between the crude intermundian gods of Epicurus and the Democritean spirits of the air. We may compare the distinction in Sext. Emp. IX 42, where the doctrine of the *εἴδωλα* is ascribed to Democritus, the *φαντασία εἰδώλων*, the nightly vision of images to Epicurus, *τὸ δὲ εἴδωλα εἶναι ἐν τῷ περιέχοντι ὑπερφυῆ καὶ ἀνθρωποειδεῖς ἔχοντα μορφάς...παντελῶς ἐστι δυσπαράδεκτον· τὰ δὲ αὐτὰ*

*καὶ πρὸς τὸν Ἐπίκουρον ἔνεστι λέγειν οἰόμενον ὅτι κατὰ τὰς ἐνυπνιδίους φαντασίας τῶν ἀνθρωπομόρφων εἰδώλων ἐνοήθησαν θεοί.* Cic. himself is not consistent in his use of terms for the *εἴδωλα*. In I 29, 73 he speaks of the *imagines* of Democritus, in *Fam.* XV 16 he employs the term *spectra.* Lucretius uses *simulacra* or *imago* indiscriminately.

**inducens**: see above § 73.

**qui concedant**: hypothetical or indefinite relative = *οἳ ἂν ὁμολογῶσι*; see above §§ 12, 44 and I 43; and on the Ind. in the apodosis, § 18 *si quis quaerat, apparet;* § 72 *qui retractarent—sunt dicti;* § 97 *cum videamus—dubitamus,* Roby § 1574.

**majore vi—quam deus**: so edd., but MSS have *deos.* Is it possible that C. may have confused the two constructions, *necesse est sit* and *necesse est esse,* as we have a confusion between the abstract and the personal construction in Thuc. VII 42 *τοῖς Συρακοσίοις κατάπληξις ἐγένετο...ὁρῶντες*? More probably the scribe may have fallen into the Inf. constr. as the more familiar,—some MSS add *esse*—and into the Pl., because of the preceding *deos* and *deorum.*

**quale id cumque est**: cf. *Leg.* II 46 *quod ad cumque legis genus, Fin.* IV 69 *quod erit cumque visum.*

**inanima natura**: cf. below § 81 and Strato (I 59 n.), who is mentioned by Lactant. (*Ira* c. 10) in a similar context, *naturam habere in se vim gignendi et minuendi, sed eam nec sensum habere ullum nec figuram.* Plato *Soph.* 265 C speaks of it as the common view *τὴν φύσιν πάντα γεννᾶν ἀπό τινος αἰτίας αὐτομάτης καὶ ἄνευ διανοίας φυούσης.*

**vi magna incitata**: 'speeding onwards with mighty force'. We find a similar use of *inc.* in *Tim.* c. 6 *caelum volubile et in orbem incitatum.*

§ 77. **ea subjecta est necessitati**: for pleonastic Pron. cf. § 27. On the Stoic view of the relation between God and necessity, see I 39 n. *Acad.* I 28, 29; Seneca *N. Q.* II 45 *vis illum* (*Jovem*) *fatum vocare? Non errabis. Hic est ex quo suspensa sunt omnia, causa causarum;* ib. prol. § 3 (the philosopher studies whether it is in the divine power) *ex lege fatorum aliquid derogare, an majestatis diminutio sit et confessio erroris mutanda fecisse. Necesse est enim ei eadem placere, cui nisi optima placere non possunt. Nec ob hoc minus liber et potens est: ipse enim est necessitas sua.*

**qua regantur**: 'a power of such a nature as to control the universe'.

**nihil praestantius**: the characteristic of Deity, see I 45, 47, 121.

**naturae oboediens**: Sen. ib. § 15 *sunt qui putent hoc universum expers esse consilii et aut ferri temeritate quadam aut natura nesciente quid faciat.* On the inferential series, **non est igitur—ab eo igitur—nulli igitur—omnem ergo**, cf. above § 56 *nulla igitur—caelestium ergo—haud ergo—Zeno igitur.*

**etenim**: introduces a new proof of Divine Providence, not a further step in the last proof, see above § 16 n.

C b (3) *The Gods form a community, and it is natural to suppose that they possess those same social virtues, which we believe that we have derived from them; but that they possess them in higher perfection and manifest them on a vaster scale in the great city of the universe* §§ 78, 79. (The argument is obscurely worded by C. What is the ground of his *necesse* in § 78? Has he omitted a reference to the heavenly host all moving in willing obedience to law, cf. § 44?)

**si intellegentes—etiam providentes**: Aristotle would not have assented to this argument: with him God is νόησις νοήσεως, but he does not exercise any superintending providence.

**ergo**: we should have expected *mundum administrant;* but Cic. puts first two alternatives 'unless they are wanting in knowledge or power', and he puts them in the form of a question, 'Whether are they wanting in knowledge or power, (that they should refrain from governing the universe)?' [C. supposes his opponent to hesitate in drawing the desired conclusion from *et rerum quidem max.*, and immediately comes down on him with *Ergo:* 'Take then your choice of these alternatives'. R.]

**utrum ignorant**: this seems a singular point to argue. It has been assumed that, if the Gods are intelligent, they must show their intelligence by taking charge of the greatest matters, and then it is suggested that possibly they would not know which were the greatest. Perhaps C.'s first clause *quae res* &c., is a careless rendering of a clause which was Relative, not Interrogative in the Greek.

**minime cadit in**: cf. I 19 *apte cadere* n., 23 *figuram cadere*, 95 *in solem cadere*, *Div.* II 125 *nec enim ignorare deus potest qua mente quisque sit, nec frustra ac sine causa quid facere dignum deo est...Ita si pleraque somnia aut ignorantur aut negliguntur, aut nescit hoc deus aut frustra somniorum significatione utitur. Sed horum neutrum in deum cadit; Att.* XIII 19, *Sulla* 27.

Ch. XXXI § 78. **atqui**: I hardly see what force we can give to *atqui* here. Possibly we should read *atque*, as in I 16, where the best MSS have *atqui*. We find the converse, *atque* for *atqui*, in II 41. We should then have an independent argument for providential government, based upon the analogy of human society and the qualities which it calls out in man.

**si modo sunt, ut profecto sunt**: 'assuming as we must their existence', Dav. compares Lact. I 3 *deus vero, si perfectus est (nam perfectus est, ut esse debet), non potest esse nisi unus;* Theodoret *Prov.* IX 642 εἰ δὲ δίκαιος (ὥσπερ οὖν καὶ δίκαιος) ὁ τῶν ὅλων ἔφορος, καὶ ὁρᾷ τὰ γινόμενα καὶ κρίνει δικαίως. Cf. also *R. P.* III 3 *sint nobis isti magni homines, ut sunt; Off.* III 117 *quamvis dicat Epicurus, sicuti dicit; Fam.* III 64 *si te fautore usus erit, sicut profecto et utetur et usus est;* Lact. I 1 § 8 *quod si est verum, sicut est.*

**societate conjunctos**: see below § 154, *Fin.* III 64 *mundum autem censent regi numine deorum, eumque esse quasi communem urbem et civitatem*

*hominum et deorum; Leg.* I 23 *est igitur, quoniam nihil est ratione melius, eaque est et in homine et in deo, prima homini cum deo rationis societas. Inter quos autem ratio, inter eosdem recta ratio est communis; Off.* I 149 *communem totius generis hominum conciliationem et consociationem colere debemus;* Plato *Gorg.* 508 φασὶν οἱ σοφοὶ καὶ οὐρανὸν καὶ γῆν καὶ θεοὺς καὶ ἀνθρώπους τὴν κοινωνίαν συνέχειν καὶ φιλίαν καὶ κοσμιότητα καὶ σωφροσύνην καὶ δικαιότητα, καὶ τὸ ὅλον τοῦτο διὰ ταῦτα κόσμον καλοῦσιν.

**unum mundum**: opposed to the countless worlds of Epicurus.

§ 79. **eadem in iis quae humano in genere**: cf. nn. on III 38, *Leg.* I 25 *virtus eadem,* Themist. *Or.* II p. 27 εἶναι τὴν αὐτὴν ἀρετὴν καὶ ἀλήθειαν ἀνδρὸς καὶ θεοῦ.

**recti praeceptio pravique depulsio**: cf. I 36 *naturalem legem recta imperantem prohibentemque contraria* with nn.

**mentem a dis ad homines pervenisse**: see on § 18, also *Leg.* I 22, 24 *animum esse ingeneratum a deo.*

**mens, fides**: see on § 61.

**qui convenit**: so below § 87. Dumesnil on *Leg.* I 35 cites a number of other exx.

**augusta et sancta**: cf. I 119.

**quodsi inest**: in opposition to the last sentence, though repeating the one before.

**ab superis defluere**: cf. § 18, n. *Tusc.* I 66 (*memoria, mens, cogitatio*) *sola divina sunt, nec invenietur umquam unde ad hominem venire possint nisi a deo; Off.* III 44 *mentem qua nihil homini dedit deus ipse divinius;* Seneca *Ep.* 41 *bonus vir sine deo nemo est;* ib. 73 *nulla sine deo mens bona est;* but elsewhere we find the Stoics distinguishing between the gifts of God or nature or fortune, and the moral qualities which a man must acquire for himself, as below III 86 foll. and Hor. *Ep.* I 18 *haec satis est orare Jovem quae donat et aufert; det vitam, det opes, aequum mi animum ipse parabo.*

**deos habere majora**: on this argument *per viam eminentiae* see Sextus IX 23 ὁ νοῦς ὀξὺς ὢν καὶ εὐκίνητος ἐν τῷ μεταβάλλειν τῇ αὐτοῦ φύσει ἦλθε καὶ εἰς ἔμφασιν τοῦ παντὸς καὶ ὑπενόησέ τινα ὑπερβαλλόντως δύναμιν νοητικήν, καὶ ἀναλογοῦσαν μὲν αὐτῷ, θείαν δὲ τὴν φύσιν, ibid. §§ 45, 46; also above § 30 *sensum et rationem in* ἡγεμονικῷ *inesse acriora atque majora;* § 39 *quanto igitur in mundo facilius virtus.*

C b (4) *When we confess the benevolent wisdom displayed in the universe and the heavenly bodies, and allow that these are divine, we confess that all things are ordered by Divine Providence* § 80.

§ 80. **cum docuerimus esse deos quorum—videremus**: cf. § 39 foll. **vid.** is Imp. Subj. (like *inessent* below,) because subordinated to **doc.**: no statement is made as to its being the fact now, it is simply repeated as a part of a former argument.

**caelum**=*aether*, as in § 91 and § 101 *caeli complexus qui aether vocatur*, Diog. L. VII 138 *οὐρανὸς δέ ἐστιν ἡ ἐσχάτη περιφέρεια ἐν ᾗ πᾶν ἵδρυται το θεῖον.*

**cum magno usu**: cf. *cum admirabilitate* § 101 and Index under *cum*.

C c. *Providential government inferred from the consideration of the universe itself as embodying an intelligent principle first imparted to it by a creative energy* §§ 81—98. (1) *Meaning of the term 'Nature'*. §§ 81, 82.

Ch. XXXII § 81. **eaque ab ea**: if the reading is right, we have here an example of the Pleonastic Demonstrative, for which see n. on § 27 and Index.

**vim sine ratione**: cf. I 35, II 43, III 27.

**vim participem rationis**: Sch. quotes *Ac.* I 28 (*natura sentiens*) *in qua ratio perfecta insit, quae sit eadem sempiterna,...quam vim animum esse dicunt mundi; eandemque esse mentem sapientiamque perfectam, quem deum appellant, omniumque rerum, quae sunt ei subjectae, quasi prudentiam quandam.*

**via progredientem**: see § 57 and the passages quoted on *seminibus* below.

**declarantemque quid cujusque rei causa efficiat, quid sequatur**: 'nature shows plainly what she does to produce each effect and what is the end she aims at', i.e. we see the rationality of nature both in the adaptation of means to ends and in the choice of ends. Cf. I 12.

**cujus sollertiam**: cf. §§ 35, 57, 85, 88, I 92, Arist. *Eth.* II 6 § 9 *ἡ δὲ ἀρετὴ πάσης τέχνης ἀκριβεστέρα καὶ ἀμείνων ἐστίν, ὥσπερ καὶ ἡ φύσις*, Paley *Nat. Theol.* c. 3 'the contrivances of nature surpass the contrivances of art in the complexity, subtilty and curiosity of the mechanism; and still more, if possible, do they go beyond them in number and variety' foll.

**seminis vim**: the seed was a favourite illustration of the working of the creative principle in nature; see above § 58, and Diog. L. VII 136 (*τὸν θεὸν*) *κατ' ἀρχὰς καθ' αὑτὸν ὄντα τρέπειν τὴν πᾶσαν οὐσίαν δι' ἀέρος εἰς ὕδωρ· καὶ ὥσπερ ἐν τῇ γονῇ τὸ σπέρμα περιέχεται, οὕτω καὶ τοῦτον, σπερματικὸν λόγον ὄντα τοῦ κόσμου,...ἀπογεννᾶν τὰ τέσσαρα στοιχεῖα*, Stob. *Ecl.* I p. 66 *οἱ Στωικοὶ νοερὸν θεὸν ἀποφαίνονται πῦρ τεχνικὸν ὁδῷ βαδίζον ἐπὶ γενέσει κόσμου ἐμπεριειληφὸς πάντας τοὺς σπερματικοὺς λόγους καθ' οὓς ἅπαντα καθ' εἱμαρμένην γίνεται.* Seneca enlarges on the energy of seed from another point of view (*N. Q.* II 6) *consideremus quae ingentem vim per occultum agunt: parvula admodum semina et quorum exilitas in commissura lapidum locum invenit, in tantum convalescunt, ut ingentia saxa distrahant;* Cic. *Cato* 52 *omitto vim ipsam omnium quae generantur e terra, quae ex fici tantulo grano aut ex...minutissimis seminibus tantos truncos procreet.*

**concipientem naturam**: on the adjectival use of the participle see Nägelsb. § 117. For the thought cf. § 128 below; Simplic. on Arist.

*Categ.* O γ Br. p. 78 (cited by Heinze p. 114) καταβληθὲν γὰρ τὸ σπέρμα ἀναπληροῖ τοὺς οἰκείους λόγους καὶ ἐπισπᾶται τὴν παρακειμένην ὕλην καὶ διαμορφοῖ, pseudo-Philo *Inc. Mund.* p. 506 οὐδὲν ἐκ μόνου σπέρματος δίχα τῆς οἰκείας τροφῆς ἀποτελεῖται· σπέρμα γὰρ ἔοικεν ἀρχῇ, ἀρχὴ δὲ καθ' αὑτὴν οὐ τελειογονεῖ, as the writer proceeds to show in the case of vegetable and animal production, and hence argues that the world can never be reduced to the single fire-seed of the Stoics; and Cic. l. c. 51 *terra, cum gremio mollito ac subacto sparsum semen excepit, primum id occaecatum cohibet, deinde tepefactum vapore et compressu suo diffundit* foll.

**partim—partim**: on the Scale of Existence see above § 33.

§ 82. **omnium quae sint naturam esse corpora et inane**: in Epicurus' own words ἡ τῶν ὅλων φύσις σώματά ἐστι καὶ κενόν (Sext. IX 333), thus rendered by Lucr. I 445 *ergo praeter inane et corpora tertia per se nulla potest rerum in numero natura relinqui.* For the constr. *ita dividit—esse* cf. *Tusc.* V 93 *vides ut Epicurus cupiditatum genera diviserit,...partim esse naturales.*

**quaeque his accidant**: Lucr. l. c. continues *nam quaecumque cluent aut his conjuncta duabus rebus ea invenies aut horum eventa videbis,* where Munro says '*conj.* and *ev.* appear to have been devised by L. himself to distinguish the two kinds of συμβεβηκότα or *accidentia*', and cites Sext. Emp. X 221, as distinguishing two classes of συμβεβηκότα, the ἀχώριστα such as solidity of atoms, the οὐχ ἀχώριστα such as motion. He also quotes *Plac. Phil.* I 3 (Epicurus holds) συμβεβηκέναι τοῖς σώμασι τρία ταῦτα, σχῆμα, μέγεθος, βάρος. Compare Waitz on Arist. *An. Post.* I 2 συμβεβηκότα *appellantur tum omnia quae non sunt substantiae, etiamsi necessario de his praedicantur, tum maxime ea quae substantiis ita adhaereant, ut non necessario cum iis conjuncta sint, Top.* I 5 p. 102 b, Grote *Arist.* I 412 n., Quintil. III 6 § 36 *Theodorus de eo 'an sit', et 'de accidentibus ei quod esse constat', id est* περὶ οὐσίας καὶ συμβεβηκότων *existimat quaeri;* ib. V 10 § 58 *proprium est aut quod soli accidit, ut homini sermo, risus; aut quod utique accidit sed non soli, ut igni calefacere,* Prantl *Gesch. d. Logik* I p. 518. Quintilian also uses the word in its grammatical sense, whence our word 'accidence', as in I 5 § 41 *plurima verbo accidunt, ideoque in eo fiunt soloecismi per genera, tempora, personas, modos.*

**nulla cohaerendi natura**: 'with no natural connexion'; this seems inconsistent with what we read elsewhere, as in Orig. *de Orat.* c. 6 (Lomm. XVII p. 107) τῶν κινουμένων τὰ μέν τινα τὸ κινοῦν ἔξωθεν ἔχει, ὥσπερ τὰ ἄψυχα καὶ ὑπὸ ἕξεως μόνης συνεχόμενα (such as hewn stones and dead wood); Achill. Tat. in Arat. c. 14 σώματα ἡνωμένα λέγεται ὅσα ὑπὸ μιᾶς ἕξεως ἡνωμένα κρατεῖται, οἷον λίθος ξύλον, ἔστι δὲ ἕξις πνεῦμα σώματος συνεκτικόν, Sext. IX 78 foll., who, after showing that the world is ἡνωμένον, a unit of which all the parts are joined by common sympathy (see above nn. on § 19), proceeds τῶν ἡνωμένων σωμάτων τὰ μὲν ὑπὸ ψιλῆς ἕξεως συνέχεται, τὰ δὲ ὑπὸ φύσεως, τὰ δὲ ὑπὸ ψυχῆς· καὶ ἕξεως μὲν ὡς λίθοι καὶ ξύλα, φύσεως δὲ καθάπερ τὰ φυτά, ψυχῆς δὲ τὰ ζῷα, Nemesius c. 2

p. 114 Matth. *ζῆν οὖν λέγουσι καὶ τὰ πάντη ἄψυχα ἑκτικὴν ζωήν, καθ' ὃ συνέχεται ὑπὸ τῆς τοῦ παντὸς ψυχῆς εἰς τὸ εἶναι μόνον καὶ μὴ διαλύεσθαι.* From such passages it would appear that even the lowest grade of inorganic matter was unified by a principle of cohesion. But Sextus in one passage seems to exclude inorganic matter from the class of *ἡνωμένα* (IX 78) *ἡνωμένα μὲν οὖν ἐστὶ τὰ ὑπὸ μιᾶς ἕξεως κρατούμενα, καθάπερ φυτὰ καὶ ζῷα*, and Sch. thinks that *cohaereo* may here be used to express organic unity. In support of this he cites §§ 87, 115, 155, *Acad.* I 28 *omni natura cohaerente et continuata*, *Leg.* I 24 *alia quibus cohaererent homines* (which make up the human frame), *Orat.* II 325 *ut non adfictum aliquod sed cohaerens cum omni corpore membrum esse videatur*, Sen. *N. Q.* II 2 *naturam corporis nulla ope externa sed unitate sua cohaerentis*; compare also *Leg.* fr. 3 *una eademque natura mundus omnibus partibus inter se congruentibus cohaeret ac nititur.* It seems to me however that if *nat. coh.* had this force, there was no occasion for C. to particularize the fragmentary nature of the substances chosen for his example: why should he not have spoken generally of wood or stone, as in the passages cited from the Greek? Perhaps we may explain the difficulty thus: a fragment of earth or stone has lost the unity of the earth or rock from which it was taken, though as a part of the world, governed by laws of gravitation &c., it is still under a uniting principle. [Taking Cicero's words and argument here, I should think he would include in 'connected things' not only organic unities like plants and animals, but all fitted things, e.g. the corner of a box shewing the two sides dove-tailed into one another. He instances a turf or bit of pebble, because they can be separated without impairing the utility or changing the character of either themselves or the parent mass. The unity is only one of adhesion, not of adaptation as well. The two combined he calls 'cohesion'. R.]

**ut glaebam:** sc. *constare dicimus natura.* **nulla temeritas:** 'nothing at hap-hazard', as in the fragment of stone.

Cc (2). *The universe is a vast organism permeated and controlled by an intelligent nature, all the parts of which cooperate for the good of the whole.* §§ 83—86.

Ch. XXXIII § 83. **a terra stirpibus continetur:** same phrase § 127. For the personification implied by the preposition see § 33 n., 134, and Draeg. § 230. Here however there is a special reason for its use, as C. wishes to contrast the agency of the earth with the instrumentality through which it acts, cf. below § 125 *ejus summo angulo aer ab iis adversus pellitur.*

**arte naturae:** see above § 81, *Leg.* I 26, Arist. *Meteor.* p. 587 E *μιμεῖται ἡ τέχνη τὴν φύσιν*, Posidonius ap. Seneca *Ep.* 90; Theodoret *Prov.* c. 3.

**gravidata:** of course Nom. 'impregnated'.

**amplexa alat:** Nägelsb. § 30 cites this as an ex. of a Latin Parti-

ciple standing for a substantival clause, 'in its bosom': perhaps it is rather 'by its embrace'.

**superis naturis**: water, air, ether, cf. § 24 foll.

**exspirationibus**: [this rare word is found also in Tert. *An.* 25, Cael. Aurel. *Tard.* I 1 § 141, Hieron. *Ep.* 108. 28. J. E. B. M.] Cf. §§ 27, 40, 118 with nn. and Arist. *Meteor.* I 4 § 2 *θερμαινομένης γὰρ τῆς γῆς ὑπὸ τοῦ ἡλίου τὴν ἀναθυμίασιν ἀναγκαῖον γίγνεσθαι, μὴ ἁπλῆν, ὥς τινες οἴονται, ἀλλὰ διπλῆν, τὴν μὲν ἀτμιδωδεστέραν, τὴν δὲ πνευματωδεστέραν, τὴν μὲν τοῦ ἐν τῇ γῇ καὶ ἐπὶ τῇ γῇ ὑγροῦ ἀτμιδώδη, τὴν δ' αὐτῆς τῆς γῆς οὔσης ξηρᾶς καπνώδη*, ib. I 3 § 15, II 3 § 20, Sen. *N. Q.* I 1 § 6.

**aspiratione aeris**: 'by the blowing upon them of the air', cf. below § 136 *aspirantes* and Lact. VII 3 *ventorum diversa et utilis aspiratio.*

**nobiscum videt**: *Plac. Phil.* IV 13 *Χρύσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὁρᾶν ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὁρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει, κατὰ δὲ τὴν πρὸς τὸν περικείμενον ἀέρα ἐπιβολὴν ἐντείνοντος αὐτὸν κωνοειδῶς, ὅταν ᾖ ὁμογενὴς ὁ ἀήρ*, Diog. VII 157 *γίνεσθαι μέντοι τὸ κωνοειδὲς τοῦ ἀέρος πρὸς τῇ ὄψει, τὴν δὲ βάσιν πρὸς τῷ ὁρωμένῳ· ὡς διὰ βακτηρίας οὖν τοῦ ταθέντος ἀέρος τὸ βλεπόμενον ἀναγγέλλεσθαι.* In *Att.* II 3 Cic. contrasts the Stoic theory of vision (*ἔκχυσις radiorum*) with the Epicurean *κατ' εἰδώλων ἐμπτώσεις*. The air was equally important according to both theories, cf. Lucr. IV 240—323 'an image pushes before it the air between it and the eye: this air sweeps through the pupil and lets us judge of the distance of the object', 'thus the mirror and its distance from us is seen by means of its image which propels before it the air between the mirror and the eye, then when we have caught sight of the mirror, the image which goes from us to it, comes back to us but drives onward an air which is perceived before the image' *is quoque enim duplici geminoque fit aere visus* l. 274. Diogenes of Apollonia seems to have been the first to assign this importance to air as the means of producing sensation: his view is more allied to the Stoic than to the Epicurean, cf. Theoph. *de Sensu* 39 *Διογένης δέ, ὥσπερ τὸ ζῆν καὶ τὸ φρονεῖν, τῷ ἀέρι καὶ τὰς αἰσθήσεις ἀνάπτει...τὴν μὲν ὄσφρησιν τῷ περὶ τὸν ἐγκέφαλον ἀέρι...τὴν δ' ἀκοὴν ὅταν ὁ ἐν τοῖς ὠσὶν ἀὴρ κινηθεὶς ὑπὸ τοῦ ἔξω διαδῷ πρὸς τὸν ἐγκέφαλον. τὴν δ' ὄψιν ὁρᾶν ἐμφαινομένων εἰς τὴν κόρην, ταύτην δὲ μιγνυμένην τῷ ἐντὸς ἀέρι ποιεῖν αἴσθησιν.* For further information see Cleom. I 1 p. 4 cited on § 116, Gell. V 16, Macrob. VII 14, Schneider *Ecl. Phys.* I pp. 329—408 and notes in II 185—267, where references are given to Arist. *de Sensibus*, Galen *de Usu Corporis* X, Euclid *Optica* &c.

**nobiscum audit**: all philosophers (except Epicurus, on whom see Lucr. IV 522—614, Diog. X 53) agreed in this (see *Plac. Phil.* IV 16), but they differed as to the way in which sound was produced by air, whether it was by external air or internal air or both together (as Diogenes held), cf. Sext. *P. H.* III 51 *ἥν τε ὁ πεπληγμένος ἀήρ, ἥν τε τὰ μόρια τῆς φωνῆς φέρηται περὶ τὰ ὦτα καὶ πλήττῃ τὸ ἀκουστικὸν πνεῦμα, ὥστε τὴν ἀντίληψιν τῆς φωνῆς ἀπεργάζεσθαι.* Diog. L. VII 158 gives the view of Chrysippus *ἀκούειν δὲ τοῦ*

*μεταξὺ τοῦ τε φωνοῦντος καὶ τοῦ ἀκούοντος ἀέρος πληττομένου σφαιροειδῶς, εἶτα κυματουμένου καὶ ταῖς ἀκοαῖς προσπίπτοντος*, see Cleomedes, quoted on § 116, and Schneider I pp. 288—328.

**nobiscum sonat**: Seneca *N. Q.* II 6 *quid est vox nisi intentio aeris... linguae formata percussu?* Diog. VII 55 *ἔστι δὲ φωνὴ ἀὴρ πεπληγμένος*, which Theon, cited by Menage in loc., says is the generally accepted definition; Epicurus however considered voice a material substance distinct from air. Compare a curious passage in the Christian apologist Theophilus I 7 (of the spirit of God) *τοῦτον λαλεῖς ἄνθρωπε, τούτου τὸ πνεῦμα ἀναπνεῖς.*

**movetur nobiscum**: Seneca attributes to air a more important part in motion (*N. Q.* II 6) *quid cursus et motus omnis nonne intenti spiritus opera sunt? hic facit vim nervis et velocitatem currentibus.*

§ 84. **medium—qui est infimus**: see § 116 n. and *Tusc.* V 69 *omnia delata gravitate medium mundi locum semper expetunt, qui est idem infimus in rotundo.* The things which move upwards are according to Sch. exhalations, those which move downwards rain, lightning &c., those with circular movement the stars; but if we compare § 44 and *Tusc.* I 40, it seems more natural to explain these movements of the four elements mentioned immediately below: water and earth move downwards, air and the earthly fire upwards, while ether, i.e. the heavenly fire, has a circular movement. Compare on the whole passage Greg. Nyss. *Dial. de Anim.* p. 187 *τίς γὰρ βλέπων τὴν τοῦ παντὸς ἁρμονίαν, τῶν τε οὐρανίων καὶ τῶν κατὰ γῆν θαυμάτων (θαυμαστῶν), καὶ ὡς, ἐναντίως ἔχοντα πρὸς ἄλληλα τὰ στοιχεῖα κατὰ τὴν φύσιν, πρὸς τὸν αὐτὸν τὰ πάντα σκόπον διά τινος ἀῤῥήτου κοινωνίας συμπλέκεται, τὴν παρ' ἑαυτοῦ δύναμιν ἕκαστον πρὸς τὴν τοῦ παντὸς διαμονὴν συνεισφέροντα...καὶ οἷς ἀνωφερής ἐστιν ἡ φύσις ἐπὶ τὰ κάτω φέρεται, τῆς ἡλιακῆς θερμότητος διὰ τῶν ἀκτίνων καταῤῥεούσης, τὰ δὲ ἐμβριθῆ τῶν σωμάτων ἀνακουφίζεται διὰ τῶν ἀτμῶν λεπτυνόμενα κ.τ.λ.*

**continens—continuata**: merely the difference of a neuter and passive expression, as below § 117 we have both used of air.

**vicissitudine eorum**: cf. III 30 foll., *Tusc.* V 69, Lucr. I 782 foll. This was the doctrine of all the Ionic schools, but esp. of Heraclitus, the apostle of 'Flux'. See the Introduction.

**sursus deorsus**: on the asyndeton in such antithetic phrases see Draeg. § 359 b *β*.

**conjunctio continetur**: a pleonastic expression for *conjunctio servatur* or *partes continentur*, cf. below § 97 *impetus movetur.*

§ 85. **aut sempiterna...aut certe perdiuturna**: the 1st is the doctrine of Panaetius, the 2nd that of Stoics generally, see on § 118.

**utrumvis ut sit**: 'taking whichever view you please'.

**classium navigatio...instructio exercitus**: see below § 87 (which, one would think, should have followed here, the intervening arguments being rather out of place), and Sext. IX 26 foll. 'if anyone sitting on Ida had beheld the army of the Greeks in battle array, he would have understood that it was under the guidance of a rational being, and so, if anyone

saw a ship moving onwards with sails set; the same inference is suggested by the orderly movements of the stars'. Sextus (ib. 78) mentions a ship as an ex. of a body compounded ἐκ συναπτομένων, an army as an ex. of a body ἐκ διεστώτων, and contrasts these with the strictly ἡνωμένα such as φυτὰ καὶ ζῷα.

**procreatio vitis**: the reference to the plant and animal as exhibiting lower stages of the divine Reason is found in Sext. ib. 116. See above § 35 and passages there quoted from *Fin.* IV 32, V 39.

**natura regatur**: for constr. cf. § 4 *quo haec regantur* n.

§ 86. **qui...semina contineat**: cf. Sext. IX 103 ὁ κόσμος περιέχει σπέρματος λόγους λογικῶν ζῴων, λογικὸς ἄρα ὁ κόσμος, and a little before οὐχ ὡς ἂν εἴποιμεν τὴν ἄμπελον γιγάρτων εἶναι περιεκτικήν, τουτέστι κατὰ περιγραφήν, ἀλλ' ὅτι λόγοι σπερματικοὶ λογικῶν ζῴων ἐν αὐτῷ περιέχονται. See above § 81 *seminis vim.*

**ut**: 'for instance', cf. I 88 n.

**dentes et pubertatem**: these were cited as examples of the coexistence of the lower and higher forms of life in man, cf. Posidonius ap. Diog. VII 138 τὸν κόσμον οἰκεῖσθαι κατὰ νοῦν καὶ πρόνοιαν...εἰς ἅπαν αὐτοῦ μέρος διήκοντος τοῦ νοῦ, καθάπερ ἐφ' ἡμῶν τῆς ψυχῆς· ἀλλ' ἤδη δι' ὧν μὲν μᾶλλον, δι' ὧν δὲ ἧττον· δι' ὧν μὲν γὰρ ὡς ἕξις κεχώρηκεν, ὡς διὰ τῶν ὀστῶν καὶ τῶν νεύρων· δι' ὧν δὲ ὡς νοῦς, ὡς διὰ τοῦ ἡγεμονικοῦ. Cic. however seems rather to misapply the argument: his argument here seems to be that since life appears in its lower form of φύσις or ἕξις in parts of the human frame, therefore man himself is actuated by—it ought to be—'this lower life'; but he says instead 'by nature' in its highest Stoic sense. It may be questioned however whether he distinctly realized that φύσις had this lower meaning, though we catch unconscious glimpses of it. For the use of the abstract *pubertas* instead of the concrete *pubes* cf. Plin. *N. H.* XXI 97.

**cui ea existant**: 'in whose body they are produced', for Dat. see Roby § 1152.

Cc (3). *The fact that all the parts of which the universe is composed are combined as is best for beauty and utility, can only be explained as the result of intelligence. Nature exhibits a skill infinitely beyond the reach of art, but yet even art testifies to the existence and intelligence of the artist. If the orrery attests the wisdom of Archimedes, much more must the movements of the heavenly bodies attest the wisdom of the Creator.* §§ 86—92.

Ch. XXXIV. **seminator**: see above *semina contineat* and § 58. The word occurs also in III 66.

**altor**: only found here in Cic. though *terra* is called *altrix nostra Tim.* c. x.

**sicut membra**: cf. I 34 and 100. **nutricatur**: the deponent form, about which Heindorf doubted, is attested in this passage by Priscian VIII 14 § 77 and Nonius p. 478, where other exx. are given.

**quodsi mundi partes natura administrantur**: we have had the same thing said at the beginning of § 83 and of § 86.

**quod effici optimum potuit**: we find this admission of a necessity limiting the action of Providence, both in Chrysippus (*πολὺ τὸ τῆς ἀνάγκης μεμῖχθαι*, on which Plutarch remarks that, if so, *οὔτε κρατεῖ πάντων ὁ θεός, οὔτε πάντα κατὰ τὸν ἐκείνου λόγον διοικεῖται* *St. Rep.* 37) and in Seneca, *Prov.* v 9 *non potest artifex mutare materiam.* See also Philo *Prov.* II 74 *Providentia, ut dicit Chrysippus et Cleanthes, nihil praetermisit pertinentium ad certiorem utilioremque dispensationem. Quod si aliter melius esset dispensari res mundi, eo modo sumpsisset compositionem,* Galen *Us. Part.* XI 14 *εἶναι γάρ τινα λέγομεν ἀδύνατα φύσει, καὶ τούτοις μηδ' ἐπιχειρεῖν ὅλως τὸν θεόν, ἀλλ' ἐκ τῶν δυνατῶν γενέσθαι τὸ βέλτιον αἱρεῖσθαι*, Philodemus *π. θεῶν διαγωγῆς* col. 8 *Vol. Herc.* VI 53 (Zeller IV 178) 'the Stoics while they assign all power to God', *ὅταν ὑπὸ τῶν ἐλέγχων πιέζωνται, τότε καταφεύγουσιν ἐπὶ τὸ διὰ τοῦτο φάσκειν τὰ συναπτόμενα* (what is fitting) *μὴ ποιεῖν, ὅτι οὐ πάντα δύναται.* On the Stoic theodicy generally see Zeller p. 173 foll., and compare the doctrine maintained by Leibnitz *Theod.* I § 8 'il demeure toujours vrai qu'il y a une infinité de mondes possibles dont il faut que Dieu ait choisi le meilleur, puisqu'il ne fait rien sans agir suivant la suprême raison'; also J. S. Mill's *Theism* Pt 2, where he argues in favour of the hypothesis of a benevolent Creator 'working under the limitation (*quod potuit*) of inexorable laws and indestructible properties of matter'.

§ 87. **ergo**: elliptical, 'you deny it? Then let some one show a better'. Cf. § 77 *ergo utrum ignorant*, and the elliptical force of *ἐπεί* with Imperative.

**potuisse melius**: compare the famous saying of Alphonso of Castile (A. D. 1252), 'If the Creator had consulted me, the world would have been constructed on a simpler and better plan' (than that of Ptolemy). Theory is put in place of fact, and the supporters of the theory require it to be accepted as perfect and divine. St Paul takes a different view of the existing order of nature: with him 'the whole creation is groaning and travailing together, waiting for the manifestation of the sons of God'. And a philosopher like Butler does not pretend to maintain the perfection of the order of nature, as it is at present known to us: he only asserts that we do not know enough to pronounce positively that it is imperfect.

[**potuerit**: completed future indicative. *Quod potuerit* is to *desiderabit* what *quod potuit* would be to *desiderat.* Both denote what could not have taken place before the time of the principal verb. Cicero says 'any fancied improvement will be either a deterioration or an improvement precluded by the nature of things'. *Poterit* would be out of place here as it would denote a subsequent time. *Quod fieri non poterit, facere conabitur* would describe the impotency of a constructor: *quod fieri non potuerit, desiderabit* reproves the vanity of the critic. 'He will be regretting the absence of that, which could not possibly have been there'. R.]

**ad usum—ad speciem**: see I 1 *ad agnitionem pulcherrima.*

**eo statu**: Abl. of Quality. We often find *status* used of the order of the universe, as in the parallel passage *Orat.* III 178 *incolumitatis ac salutis omnium causa videmus hunc statum esse hujus totius mundi atque naturae, rotundum ut caelum, terraque ut media sit, eaque sua vi nutuque teneatur, sol ut circumferatur, ut accedat ad brumale signum et inde sensim ascendat in diversam partem, ut luna accessu et recessu suo solis lumen accipiat, ut eadem spatia quinque stellae dispari motu cursuque conficiant. Haec tantam habent vim, paulum ut immutata cohaerere non possint, tantam pulchritudinem ut nulla species ne cogitari quidem possit ornatior.*

**utrum ea fortuitane sint**: cf. *Tusc.* IV 9 *utrum mavis statimne nos vela facere an remigare?* ib. 59 *utrum illudne non videatur aegre ferendum... an tollenda aegritudo; Divin.* II 120 *utrum igitur censemus dormientium animos per sene ipsos in somniando moveri an externa visione pulsari? pro Quint.* 92 *ea res nunc in discrimine versatur utrum possitne contra luxuriam parsimonia defendere an* &c. *Invent.* I 51 *utrumne tuum virum malis an illius;* ib. II 115 *utrum copiane sit agri...an penuria, consideratur.* See Draeg. § 158 A c, § 468 A b. This use has grown out of the original pronominal use, which we find in such passages as *Fin.* II 60 *utrum tandem censes? tuamne orationem lubentius auditurum fuisse an meam? Acad.* II 71, Madv. *Gr.* § 452, Wagner on *Aulul.* 427, L. and S. s. v. *utrum.* The *ne* is joined to the most important word following *utrum.* There seems no occasion to make a broad distinction between the two uses, as Madv. has done; there are cases which might be assigned to either. For the neuter *ea* referring to preceding feminines, cf. §§ 7, 15 with nn.

**sensu moderante**: here used in the later sense of 'intelligence', 'self-consciousness', cf. *sentiens natura* § 85.

**ne—quidem**: in the milder sense as I 71, 110, 113, see Index.

**qui convenit**: see above § 79.

**signum aut tabulam pictam**: cf. Philo *Prov.* I 72 (Aucher's trans. fr. the Armenian) *statuam videntes statuarium intellegimus; et imaginem venuste pictam cernentes pictorem ipsum admiramur; atque navem ingeniose fabricatam videntes architectum navis laudibus celebramus...quomodo non magis universorum sapientem providentiam propter constantes mundi partes sapienter ordinatas?*

**cum procul cursum navigii videris**: see above § 85, and Theophilus I 5 *ὃν τρόπον καὶ πλοῖον θεασάμενός τις ἐν θαλάσσῃ κατηρτισμένον καὶ τρέχον καὶ κατερχόμενον εἰς λιμένα* 'infers a pilot, so we infer a pilot of the world'; and immediately afterwards he speaks in thoroughly Stoic fashion of the Divine Spirit which contains the world, as the seeds of the pomegranate are contained by the rind: also Theodoret *Provid.* II p. 500 Schulze.

**solarium discriptum**: 'a sun-dial marked out with lines', see engraving in *Dict. of Ant.* under *horologium. Solarium* is properly the *horologium sciothericum* of Pliny (*N. H.* II 78), but is used as a general name for all kinds of *horologia*, as we read in Censorinus c. 23 *illud satis constat nullum (solarium) in foro prius fuisse quam id quod M. Valerius ex Sicilia advec-*

*tum ad rostra in columna posuit* (273 B.C. according to Varro): *deinde aliquanto post P. Cornelius Nasica, censor* (159 B. C.), *ex aqua fecit horarium, quod et ipsum ex consuetudine noscendi a sole horas solarium cœptum vocari.* This seems to be the only passage in which *discriptum* is used as a distinctive name for the sun-dial, but Censorinus l.c. goes on to say, in regard to the Sicilian dial, that, *quoniam ad clima Siciliae discriptum ad horas Romae non conveniret, L. Philippus, censor, aliud juxta constituit;* and Vitruvius IX 8 gives a full account of the way in which the lines of sun-dials (*discriptiones horologiorum*) are to be drawn. On the subject of ancient clocks generally see Vitr. ib. c. 9, Lewis *Astron.* pp. 177, foll., Beckmann *Inventions* I p. 135 tr.

**(solarium) ex aqua**=κλεψύδρα, Lewis *Astr.* p. 182. For constr. cf. *Tusc.* I 51 *animum sine corpore*, 116 *mortes cum gloria*, II 7 *lectionem sine delectatione*, and above § 14 *praeter naturam portentis* with n. For the comparison see Philo *Prov.* I 42 'a piece of skilful workmanship at once reveals the worker, though he may be unseen; as in the case of him who invented an instrument for determining the time of day by the division of a circle into twelve parts', and the famous passage at the beginning of Paley's *Nat. Theol.* [Mr Swainson refers to the *Sat. Rev.* for May 15, 1875.]

**artes**: 'works of art,' cf. *Leg.* II 2 *exquisitis antiquorum artibus;* Hor. *Od.* IV 8 5 *artium, quas aut Parrhasius protulit aut Scopas:* it is also used for a treatise, as in *Fin.* IV 5 *praecepta in artibus reliquerunt; Invent.* I 8 *neque eo dico, quod ejus ars, quam edidit, mihi mendosissime scripta videatur;* see Mayor on Juv. VII 177.

§ 88. **sphaeram**: the orrery of Posidonius is not mentioned elsewhere, but that of Archimedes is often referred to, as in *Tusc.* I 63 *cum Arch. lunae solis quinque errantium motus in sphaeram illigavit, effecit idem quod ille qui in Timaeo mundum aedificavit Platonis deus, ut tarditate et celeritate dissimillimos motus una regeret conversio. Quod si in hoc mundo fieri sine deo non potest, ne in sphaera quidem eosdem motus Arch. sine divino ingenio potuisset imitari.* In *R. P.* I 14 it is said that Marcellus brought to Rome two spheres of Arch. one of which he dedicated in the temple of *Virtus*, the other he kept in his own house; the former was solid, a celestial globe, such as had been previously made by Thales (Anaximander ?), Eudoxus and others; the latter was hollow, showing the movements of the planets: cf. Ov. *Fast.* VI 276 *arte Syracosia suspensus in aere clauso* (i.e. inclosed in a glass case) *stat globus immensi parva figura poli;* Sext. Emp. IX 114 ὁρῶνται δὲ τοιαῦται (νοεραὶ) φύσεις ἐν κόσμῳ περιεχόμεναι· ἀνάγκη ἄρα καὶ αὐτὸν νοερὰν ἔχειν φύσιν, ὑφ' ἧς τεταγμένως κινεῖται, ἥτις εὐθέως ἐστὶν θεός. τά γε μὴν αὐτομάτως κινούμενα τῶν κατασκευασμάτων θαυμαστότερά ἐστι τῶν μὴ τοιούτων (see above *meliora sunt ea quae natura* &c.), τὴν γοῦν Ἀρχιμήδειον σφαῖραν σφόδρα θεωροῦντες ἐκπληττόμεθα, ἐν ᾗ ἥλιός τε καὶ σελήνη κινεῖται καὶ τὰ λοιπὰ τῶν ἄστρων, οὐ μὰ Δία ἐπὶ τοῖς ξύλοις οὐδ' ἐπὶ τῇ κινήσει τούτων τεθηπότες, ἀλλ' ἐπὶ τῷ τεχνίτῃ καὶ ταῖς κινούσαις αἰτίαις. Lactantius

(II 5) turns the illustration against the Stoic doctrine of the divinity of the stars, *utrumne igitur Stoicus si astrorum figuras in illo aere pictas effictasque vidisset, suo illa consilio moveri diceret ac non potius artificis ingenio? Inest ergo sideribus ratio ad peragendos meatus suos apta, sed Dei est illa ratio...non ipsorum siderum quae moventur.* See also Claudian *Epigr.* 18 (translated by H. Vaughan II 57 Grosart), Fabric. *Bibl. Gr.* IV c. 14, p. 455, Schick *Die Himmelsgloben d. Arch.* Hanau 1846, Lewis *Astr.* p. 194.

**Britanniam**: just made known by Caesar's conquest, cf. Catull. XI 11 *horribilesque ultimosque Britannos;* Hor. *Od.* I 35. 29 *ultimos orbis Britannos;* V. *Ecl.* I 67 *penitus toto divisos orbe Britannos; Paneg.* V 12 (Caesar) *alium se orbem terrarum scripsit repperisse.*

**barbaria**: see I 81 n. and below § 126. It seems to be used here not as a collective, but as a common noun.

Ch. XXXV. **Archimedem plus valuisse**: much as Comte affirms that we have come to see in the heavens the glory, not of God, but of Kepler, Newton, Laplace &c.

**praesertim cum**: 'although', see n. on *cum praesertim* I 26. It is strange that this use is still unnoticed in the Lexx.

**multis partibus**: 'by many degrees', not, as Kühner, 'in vielen Hinsichten', cf. below 92, 102, and I 24 *minima ex parte* 'in the slightest degree'; *Fin.* II 108 *omnibus partibus majores* 'infinitely greater'; ib. V 91; *Acad.* II 82 *duodeviginti partibus major* 'eighteen times as large', things being viewed as fractions of a whole, not as themselves units.

§ 89. **Accium**: b. 170 B.C. The lines, as probably those quoted in III 67, are from his *Medea* (Nonius p. 90, 8) not the *Argonauti*, as asserted by Priscian in the passage cited below. See Boissier *Le poète Attius*, Par. 1856. Cic. says he often conversed with him (*Brut.* 107), which shows that his death must be put later than 104 B.C. (Teuffel). Quotations from his *Atreus* are given in III 68, from uncertain plays ib. § 41 and § 90.

**divinum ac novum vehiculum**: made by the advice and with the aid of Pallas (*Palladia compacta manu* Sen. *Med.* II 365), who placed in it a vocal plank from the sacred oak of Dodona and afterwards made it a constellation, see below § 114 and Eratosth. *Catast.* 35. **nov.** cf. Sext. IX 32 *τὴν* Ἀργὼ *πρωτόπλουν τι σκάφος παρειλήφαμεν*, and Apoll. Rhod. (who was much admired by the Romans and translated by Varro Atacinus, a contemporary of Cic.) *Argon.* IV 315 *οἱ δ' ὑψοῦ νήσοιο κατ' ἀκροτάτης ἐνέοντο τηλόθεν· εἰαμεναῖσι δὲ ἐν ἄσπετα πώεα λεῖπον ποιμένες ἄγραυλοι νηῶν φόβῳ οἷά τε θῆρας ὀσσόμενοι πόντου μεγακήτεος ἐξανιόντας. οὐ γάρ πω ἁλίας γε πάρος πόθι νῆας ἴδοντο.*

**tanta moles labitur**: six of the lines are given with some alterations and in different order by Priscian *de Metr. Terent.* 15. Omitting *tanta moles labitur* he begins with the last three lines *aut forte—caelum eruit*, and then gives *fremibunda ex alto—reflat.* In three places his readings have been generally preferred to those of the MSS, viz. *reflat* for *profluit*, *spiritu* for *strepitu*, *undanti in* for *undantes veniant.* On a 4th reading

*vomit* for *eruit* see n. below. As regards the poetic quotations found in Cicero's philosophical writings, Heine (*de Font. Tusc. Disp.* p. 4) considers that they are all taken from his authorities. We know that it was usual with the Greek philosophers, especially the Stoics, to relieve their graver disquisitions with quotations, cf. *Tusc.* II 26 *fuisti saepe, credo, cum Athenis esses, in scholis philosophorum...animadvertebas igitur...versus ab iis admisceri orationi...Philo et proprio numero et lecta poemata et loco adjungebat. Itaque...studiose equidem utor nostris poetis; sed sicubi illi defecerunt, verti etiam multa de Graecis, ne quo ornamento in hoc genere disputationis careret Latina oratio.* Galen (*Plac. Hipp. et Plat.* p. 315) ἐμπλήσας ὁ Χρύσιππος ὅλον τὸ βιβλίον ἐπῶν Ὁμηρικῶν καὶ Ἡσιοδείων καὶ Στησιχορείων Ἐμπεδοκλείων τε καὶ Ὀρφικῶν, ἔτι δὲ πρὸς τούτοις ἐκ τῆς τραγῳδίας καὶ παρὰ Τυρταίου καὶ τῶν ἄλλων ποιητῶν...ταῦτα κατὰ λέξιν ἐπιφέρει 'ταυτὶ μὲν φήσουσιν ἀδολεσχίαν εἶναι γραώδη, τυχὸν δὲ καὶ γραμμάτων διδασκάλου βουλομένου στίχους ὅτι πλείστους ὑπὸ τὸ αὐτὸ διανόημα τάξαι', foll. and so we are expressly told of Posidonius (Galen *Hipp. Plat.* p. 399) ῥήσεις τε ποιητικὰς παρατίθεται καὶ ἱστορίας παλαιῶν πράξεων μαρτυρούσας οἷς λέγει. [Add Sen. *Ep.* 8 § 8, 9 § 21, 108 § 8. J. E. B. M.]

**fremibunda**: the dashing of the oars and rustling of wind in the sails.

**sonitu et spiritu**: so Ennius *Achill.* fr. 2 *oritur imber sonitu saevo et spiritu* 'with loud roaring and a mighty blast'.

**vertices vi suscitat**: the favourite alliteration in *v*.

**ruit prolapsa**: 'throws itself headlong (as it rides the billows), scatters and blows back the sea'.

**dum—dum**: 'one while—another while'. Sch. refers to Catull. LXII 45 *dum intacta manet, dum cara suis est*, which Quintil. IX 3 § 16 explains as *quoad—usque eo*, but which need not have any other than the ordinary force of *dum*. [Cf. Plaut. *Truc.* II 1 21 *dum habeat, dum amet; ubi nil habeat, alium quaestum coepiat;* Fleckeisen in *Jahrb.* (1870) p. 648. J. E. B. M.] It is more to the point to compare the compounds *nondum, nullusdum, vixdum, nihildum, quidum, primumdum*, &c., and the colloquial use with Imperatives, like *agedum*. "It is originally the Acc. of *dius* (an old form for *dies*, cf. *noctu diuque, interdius*) and is therefore a compression of *dium* meaning 'a while'." Wagner on *Trin.* 98. I believe however that there is no exact parallel to the present. The indefinite Adjective *qui* (*quod*) is rarely found in classical Latin except in connexion with *si, ne, num:* Tacitus has *aliudve quod belli commercium* (*Ann.* XIV 38), and some edd. read *alia quae* below § 115, and *aliam quam* above § 18.

**interruptum nimbum**: 'a broken cloud', i. e. not melting into the sky, but with what Ruskin calls 'the threatening and terrible outlines of the thunder-cloud', 'steep as the slope of some dark hollowed hill', 'like globes of rock tossed by Titans'. (*Mod. Painters* V 127, 141.)

**globosos turbines**: 'circling water-spouts to arise smitten by the warring billows'. So Pacuvius in his fine description of a storm (*Orat.* III 157) *undique omnes venti erumpunt, saevi exsistunt turbines, fervit aestu*

*pelagus.* Cf. also Lucr. VI 423 foll. where the πρηστήρ is described, esp. l. 426 *nam fit ut interdum tamquam demissa columna in mare de caelo descendat, quam freta circum fervescunt graviter spirantibus incita flabris;* this is called (l. 438) *versabundus turbo,* see Munro in loc.

**nisi quas terrestres strages:** 'unless (=or it may be) the sea is preparing devastation for the land'.

**evertens specus—eruit:** 'upheaving the caverns from under their roots in the depths of the stormy sea, throws up the stony mass to the light of heaven'. The old edd. of Priscian give *vomit,* which Dav. prefers, as Longinus (*Subl.* 3) has noticed the phrase πρὸς οὐρανὸν ἐξεμεῖν, but, as Heind. has pointed out, it would be extremely incongruous here, as spoken of Triton; and, in point of fact, three of Keil's four MSS give *eruit* and the fourth *meruit.*

**quam cernit ignotam:** by a sort of attraction the epithet of the Subject of the principal clause (*ignota natura*) is attached to the Object of the subordinate clause; and is thus made more prominent, 'which he sees without knowing it'; cf. *Verr.* IV 27 *vasa quae pulcherrima apud eum viderat.* See for the converse attraction (Subject of subordinate changed into Object of principal clause) I 23 n.

**juvenibus visis:** [The spectator catches sight of the rowers bending forwards and backwards, and the oars flashing and splashing in the sea. At first it reminds him of a school of dolphins with their quick movements and dashes of spray: afterwards he recognizes that they are *juvenes.* R.] From the following explanation of the simile (*primo aspectu inanimum, post incipit suspicari*) we should have expected *juvenibus* to be followed by a more distinct explanation of the real nature of the ship. The same opposition is suggested by the *dubitat primo* here; it is taken up by *idemque,* where *deinde* would perhaps have been more natural, but possibly the Greek was ὁ δὲ αὐτός, implying the inconsistency of the two views. In all probability the original gave a long quotation, describing how the spectator gradually awoke to a right appreciation of the fact before him, which C. has cut down with his *item alia multa.*

**nautico cantu:** the κέλευμα, cf. pseudo-Ascon. on *Divin. Verr.* 55 *cani remigibus celeuma per symphoniacos* (a band) *solebat, et per assam vocem, id est ore prolatam, et, ut in Argo navi, per citharam.* So Serv. on *Aen.* III 128 '*nauticus exoritur clamor*', says *celeumaticum est hoc hemistichium.* See Val. Flac. *Argon.* I 186 *non clamor anhelis nauticus aut blandus testudine defuit Orpheus;* Hyg. *Fab.* 14 *celeuma dixit Orpheus;* Blomf. on Aesch. *Pers.* 403, who quotes Longus *Past.* 3 εἷς μὲν αὐτοῖς κελευστὴς ναυτικὰς ᾖδεν ᾠδάς· οἱ δὲ λοιποί, καθάπερ χόρος, ὁμοφώνως κατὰ καιρὸν τῆς ἐκείνου φωνῆς ἐβόων, and adds *ecquis non in mentem revocat carmina quae ad remorum sonitum nautae Siculi et Veneti cantare solent?* cf. the ῥυππαπαί of the Athenian seamen (Arist. *Vesp.* 904, *Ranae* 1071).

**'sic' ait 'inciti':** so I propose to read for the *sicut inciti* of MSS. Thus *perfremunt* will refer simply to the dolphins; the behaviour of the Argo

is compared to that of dolphins at play; but reading *sicut* we seem to want either ships or men, as Nom. to *perfremunt*. The former is impossible, because there is only one Argo, and the latter are not the subject of observation. The construction also of *idem* is simplified by reading *ait*. It is difficult to see the point of *sic aut*, proposed and abandoned by Ribbeck and adopted by Ba.; if it is intended to prepare the way for other similes (concealed under *item alia multa*), that is a prosaic and cold-blooded way of introducing the comparison. For other readings see critical note. *Inciti* has the penultimate long, like *concita* in Lucr. II 266.

**rostris perfremunt**: 'so the gay dolphins, as they dart forward, cleave the sea with their snouts and make a whizzing sound' (lit. whiz through the sea). Aristotle (*Hist. An.* IX 48) speaks of the extraordinary swiftness and activity of the dolphin *ἁπάντων δοκεῖ εἶναι ζῴων τάχιστον...καὶ ὑπεράλλονται δὲ πλοίων μεγάλων ἱστούς*, so Pliny *N. H.* IX 8 *ocior volucre, ocior telo*, and a little below *pro voce gemitus humano similis...rostrum simum*. **perfr.** of the rushing sound (*ῥόθος*) caused by the prow, as it cuts through the waves, cf. *Tusc.* V 116 *fremitus murmurantis maris*, and Philostr. Jun. *Imag.* XI (of the Argo) *ἡ διεκπαίουσα τοῦ ποταμοῦ ναῦς ὑπὸ πολλῷ τῷ ῥοθίῳ τῆς εἰρεσίας.*

**Silvani melo**: the Romans, identifying Silvanus with Pan, attributed to him the reed (*καλαμόφθογγα παίζων* Ar. *Ranae*, 229), see Tib. II 5 30 foll. *garrula silvestri fistula sacra deo, fistula cui semper decrescit harundinis ordo*. Probably it is Orpheus with his lyre, not the *nauticus cantus*, which is here compared to the only music known to the shepherds. Lachmann suggests in his note on Lucr. IV 581 (where stringed instruments as well as pipes are assigned to the Fauns), that the vocal plank from Dodona is here alluded to. We are told of its giving prophetic warnings (as in *Orphica* 1160 *ἐκ δ' ἄρα κοίλης νηὸς ἐπιβρομέουσα Τομαρίας ἔκλαγε φηγός, ἥν ποθ' ὑπ' Ἀργῴησι τομαῖς ἡρμόσσατο Παλλάς*) but not, I think, of music proceeding from it. Both are mentioned in Philost. *Imag.* II 15 *ἡ Ἀργὼ μέσον ἤδη τέμνει τὸ ῥόθιον τοῦ Πόντου, καὶ θέλγει τὴν θάλατταν Ὀρφεὺς ᾄδων, ἡ δὲ ἀκούει, καὶ ὑπὸ τῇ ᾠδῇ κεῖται ὁ Πόντος...τρόπις δὲ ὑφήρμοσται τῇ νηῒ δένδρον ἀρχαῖον, ᾧ κατὰ Δωδώνην ὁ Ζεὺς ἑαυτοῦ ἐς τὰ μαντεῖα ἐχρῆτο*, and Philost. Jun. *Imag.* XI *ὁ ἐμμελὲς προσᾴδων τοῖς τῆς κιθάρας κρούμασι ξὺν ὀρθῇ τιάρᾳ, ὅ τε ὑπὲρ τῆς ἱερᾶς ἐκείνης φηγοῦ δράκων.*

**cantum et auditum**: 'a song and a hearing'. Georges in his Lexicon compares the use of *auditus* in Vegetius *Mil.* 3. 7 p. 73 *flatus emittere auditum*, and Apul. *de Mund.* p. 15 *auditus dum ad aures venit.*

**refert**: the uncertainty as to the Subject of the verb makes its meaning also uncertain. If it is Orpheus, as suggested by the quotation from Hyginus under *nautico cantu*, it might mean 'responds', 'takes up the strain'; and then *et auditum* might be added to facilitate the connexion with *ad aures*. Perhaps however *Argo* is the Subject: if the words were *A. refert melos*, this might mean 'recalls the strain', but *consimilem cantum* is hardly consistent with such a use of *refert*. Possibly again the reference

is to an echo, or to the wind bringing back the sound as the ship passes on.

§ 90. **inanimum quiddam**: but this scarcely agrees with the present order of the lines, which begin with describing a living creature *tanta moles—reflat.* Perhaps these lines ought to be placed after *eruit,* as by Priscian. The thought is better carried out in Dryden's *Indian Emperor* Act I, quoted in the Eng. trans. of 1741, where a fleet is compared first to strangely shaped clouds, then to trees with wings growing out of them, then to floating palaces &c.

**conturbaverat**: 'had puzzled them': cf. § 1 *conturbor.*

**muneris**: cf. I 19 n.

Ch. XXXVI. **nunc autem**: used like *nunc* and *nunc vero* to introduce the actual fact in contrast with an imagined case; see Dumesnil on *Leg.* I 55, and *Tusc.* II 45, III 2.

§ 91. **terra sita in media parte mundi**: the prevailing view as opposed to that of the Pythagoreans, who supposed the earth to revolve with the other heavenly bodies round a central fire, and of Aristarchus of Samos (fl. 280 B.C.) who anticipated Copernicus and was charged with impiety by Cleanthes ὡς κινῶν τοῦ κόσμου τὴν ἑστίαν (Plut. *Fac. Lun.*.p. 923 A).

**animali**: see above § 18 n. also § 136, III 34, *Tusc.* I 41. The reading *animabili* is compared by Mu. on *Tusc.* III 12 (*Adn. Crit.* p. XXXVIII) to other corruptions *naturabilis, morabilis, aequabilis* for *naturalis* &c.

**perceptum usu**: *Fin.* III 5 *rhetorica, dialectica, grammatica, geometria, musica, quamquam Latine ea dici poterant, tamen, quoniam usu percepta sunt, nostra ducamus,* and Quint. V 12. Cic. speaks in the same hesitating tone as to the word *aer* in *Acad.* I 26. Pliny mentions *spiritus et caelum* as older synonyms (*N. H.* II 5 and 38). Sch.

**tritum**: cf. *Divin.* II 11 *sorites satis sermone Latino tritus est.*

**Pacuvius**: B.C. 220—130, a native of Brundisium, nephew of Ennius. The lines quoted are assigned to the *Chryses* by Ribbeck, by others to the *Dulorestes,* an adaptation of the *Iphig. in Aul.* of Euripides. The former play relates to the fortunes of Orestes and Pylades after they have taken refuge from the pursuit of Thoas with Chryses, the priest of Apollo. The lines are thus arranged by Ribb. *hoc vide circum supraque quod complexu continet terram...solisque exortu capessit candorem, occasu nigret, id quod nostri caelum memorant, Graii perhibent aethera: quicquid est hoc omnia animat, format, alit, auget, creat, sepelit recipitque in sese omnia, omniumque idem est pater, indidemque ea quae oriuntur de integro aeque eodem occidunt.* The next fr. is evidently closely connected, *mater est terra: ea parit corpus, animam aether adjugat.*

**hoc quod memoro**: probably by *lapsus memoriae* on the part of Cic. for the *id quod memorant* in Varro *L. L.* V 17.

**quasi vero non Graius**: 'just as though the speaker were not a Greek'. 'But he talks Latin'. 'Quite so, only we are supposed to be

hearing him talk Greek' (lit. 'if we were not listening to him as speaking in Greek').

**idem:** Pacuvius shows this (that the language is understood to be Greek).

**Grajugena:** Ribbeck and Bothe suppose this to be the answer of Orestes to Thoas from the *Dulorestes*, and place a comma after *Graj.*; Sch. makes *Graj.* an epithet of *oratio* (cf. Zumpt § 257); Heind. makes it the Abl. agreeing with *istoc*. For the constr. *aperit de* see *Herenn.* II 31.

§ 92. **ex aethere igitur:** for resumptive use of *igitur* see I 44 n.

**multis partibus:** see § 88 n. Epicurus and his disciples held that the sun was really no larger than it looks to us, see Diog. X 91, Lucr. V 565, Cleomedes II 1. His true diameter is 882,000 miles, i.e. more than 111 times that of the earth (Herschel § 358). For the views of other ancient astronomers cf. *Acad.* II 82 (*solem*) *mathematici amplius duodeviginti partibus confirmant majorem esse quam terram;* Macrob. *S. Sc.* I 20 *Eratosthenes in libris Dimensionum sic ait, mensura terrae septies et vicies multiplicata mensuram solis efficit. Posidonius dicit multo multoque saepius multiplicatam solis spatium efficere.* Cleomedes professes to give the calculations of the latter. In I c. 10 p. 52 we have his calculation of the circumference of the earth from the length of the arc between Rhodes and Alexandria, which he finds from observation of the elevation of the star Canopus to be $\frac{1}{48}$ of the circle. The length of this arc is taken as 5000 stades; hence the earth's circumference will be 240,000 stades and its diameter 80,000 stades. Again in Bk II 1 p. 79 we find the words *ὑποθέμενος μυριοπλασίονα εἶναι τὸν ἡλιακὸν κύκλον τοῦ τῆς γῆς κύκλου, ἀπὸ τούτου ὁρμώμενος δείκνυσιν ὅτι μυριάδων τριακοσίων εἶναι δεῖ τὴν τοῦ ἡλίου διάμετρον*, which Delambre paraphrases as follows (I 225), 'Posidonius calcule que le diamètre du Soleil doit être de 300 myriades de stades et que ce diamètre est au moins 10,000 fois aussi grand que celui de la terre'. But we have seen that the earth's diameter was calculated by Posidonius at 80,000 stades, therefore the Sun's diameter should be, not 300 myriads (3,000,000), but 80,000 myriads (800,000,000) of stades. Delambre would have been saved from falling into a gross blunder if he had noticed that immediately below (pp. 81, 83) the phrase *ἡλιακὸς κύκλος* manifestly refers, not to the circumference, but to the orbit of the Sun. It is there stated that the Sun's diameter is $\frac{1}{750}$ of his orbit (Archimedes makes it $\frac{1}{720}$). According to this proportion the Sun's orbit should be $750 \times 3{,}000{,}000$ stades $= 2{,}250{,}000{,}000$, which is not so far from 10,000 times the supposed circumference of the earth. It would appear therefore that Posidonius made the Sun's diameter $37\frac{1}{2}$ times larger than that of the earth. Cleomedes had heard (*φασί*) that Hipparchus made it 1050 times that of the earth.

**reliqua sidera:** Cleomedes (II 3 p. 96 foll.), who mostly follows Posidonius, argues that many of the fixed stars must be as large or even larger than the sun.

**ita prosunt ut—conflagrare terras necesse sit:** as Heind. remarks, the thought is very incompletely stated: the main use, to sustain life, is not referred to, and only one alternative consequent on their change of position, the danger of being burnt up, is mentioned (cf. the story of Phaethon Ov. *Met.* II), nothing being said of the danger of being frozen, if they were moved further away.

**mota:** the gender is suited to the *sidera* in the preceding sentence; '*nempe a metonymia ad proprium vocabulum redit oratio, quippe cum de loco dicatur*' Allen.

**conflagrare a tantis ardoribus:** cf. § 138 *calescit a spiritu, Acad.* II 105 *a sole collucet,* Draeg. § 230.

C c (4). *The absurdity of attempting to explain the universe as the result of the fortuitous concourse of atoms.* §§ 93, 94.

Ch. XXXVII § 93. **hic ego non mirer:** 'and here must I not wonder', cf. *pro Balbo* 9 *hic ego nunc cuncter sic agere?*

**vi et gravitate:** hendiadys, as below *commissuras et artus* § 150.

**qui existimet:** most MSS have *existimat,* of which Mu. says '*Indicativo Epicurus contemtius demonstratur*' *praef.* p. 9, comparing Madv. *Fin.* III 73. I think however that the more general and indefinite Subjunctive suits better with the preceding *esse quemquam qui,* and with the following *isti;* and have therefore followed Ba. in reading *existimet.*

**innumerabiles—formae litterarum:** for the comparison of atoms to letters cf. Arist. *Gen. et Corr.* I 2 *ἐκ τῶν αὐτῶν τραγῳδία καὶ κωμῳδία γίγνεται γραμμάτων* 'so Democritus makes opposite qualities arise out of the same atoms'; Lucr. I 196 *ut potius multis communia corpora rebus multa putes esse, ut verbis elementa videmus;* ib. 912 'a slight change in the arrangement of atoms may produce a great difference in the compound' *quo pacto verba quoque ipsa inter se paulo mutatis sunt elementis, cum ligna atque ignes distincta voce notemus;* II 1013 foll. where see Munro. The illustration suggested by the double use of the terms *elementum* and *στοιχεῖον* was due to Plato, of whom Diog. L. (III 19) tells us, that he first employed the word in a philosophical sense, *στοιχεῖον* 'having meant nothing else but the letters of the alphabet, till Plato applied it to signify the elements of natural bodies', cf. Bentley *Phalaris* II p. 116, and *Theaet.* 201 E there cited, *ἐγὼ γὰρ ἐδόκουν ἀκούειν τινῶν ὅτι τὰ μὲν πρῶτα οἱονπερεὶ στοιχεῖα, ἐξ ὧν ἡμεῖς τε συγκείμεθα καὶ τἆλλα, λόγον οὐκ ἔχοι,* ib. 202 D *τὰ μὲν στοιχεῖα ἄγνωστα, τὸ δὲ τῶν συλλαβῶν γένος γνωστόν,* and the discussion which follows; Arist. *Metaph.* IV 3 p. 1014 a *στοιχεῖον λέγεται ἐξ οὗ συγκεῖται...οἷον φωνῆς στοιχεῖα ἐξ ὧν σύγκειται ἡ φωνὴ καὶ εἰς ἃ διαιρεῖται ἔσχατα...ὁμοίως δὲ καὶ τὰ τῶν σωμάτων στοιχεῖα λέγουσιν οἱ λέγοντες, εἰς ἃ διαιρεῖται τὰ σώματα ἔσχατα,* where see Bonitz; ib. VI 17 p. 1041 b *ἡ δὲ συλλαβὴ οὐκ ἔστι τὰ στοιχεῖα, οὐδὲ τὸ βα ταὐτὸ τῷ β καὶ α, οὐδ' ἡ σὰρξ πῦρ καὶ γῆ· διαλυθέντων γὰρ τὰ μὲν οὐκέτι ἐστίν, οἷον ἡ σὰρξ καὶ ἡ συλλαβή, τὰ δὲ στοιχεῖα ἔστι, καὶ τὸ πῦρ καὶ ἡ γῆ.* Sext. I

99 τάξει δὲ λεκτέον ἡμῖν πρῶτον περὶ τῶν στοιχείων ἐξ ὧν τὰ πάντα κατ' αὐτοὺς (τοὺς γραμματικοὺς) συνέστηκε, 'of these there are twenty-four'; Laert. VII 56. There is an argument resembling this, in *Div.* I 23 *aspersa temere pigmenta in tabula oris lineamenta effingere possunt: num etiam Veneris Coae pulchritudinem effingi posse aspersione fortuita putas? Sus rostro si humi A litteram impresserit, num propterea suspicari poteris Andromacham Ennii ab ea posse describi?* On the order in which the different nouns and adjectives of the sentence are brought together see Mayor on 2 *Phil.* 66.

**unius et viginti**: we generally reckon 23 letters in the Latin alphabet, but Y and Z were considered foreign letters and only used in Greek words. Quintil. I 4 § 9 speaks of X as the last letter of the alphabet. [X is the last letter in one of the *graffiti* of Pompeii, see *Rhein. Mus.* N. F. XII 246. J. E. B. M.]

**annales Ennii**: a history of Rome from its foundation in hexameter verse. In it 'he not only often succeeds in imitating Homeric simplicity, but still more frequently makes his lines strikingly echo the solemnity of the Roman character'. Mommsen.

**quod—valere fortuna**: the relative is explained by the following clause, as in I 2 *quod...trahimur*, and *quod continet*, I 38 *quo quid absurdius*, II 7 *quod soletis*, II 17 § 24 *quod Cleanthes docet...quanta vis insit;* in such cases it gets to be used like the Greek ὃ in Thuc. II 40 = 'whereas', cf. Madv. *Fin.* I 67, III 59.

§ 94. **quem ad modum asseverant**: most of the edd. put a mark of interrogation at the end of the sentence, understanding *quem ad modum* to mean 'how absurdly'. I do not know of any exact parallel for this use; and, in any case, it is open to the objection of Heind., that after such sentences as '*hic ego non mirer*', '*hoc qui existimet*', *quibus graviter satis Epicureae sententiae absurditatem expressit, frigide hanc denuo inferri interrogationem.* I think therefore that he is right in regarding this as an example of attraction, in which the proper principal verb '*est perfectus*' is drawn into the subordinate construction of the relative clause. He illustrates it from *Off.* I 22 *quoniam...ut placet Stoicis, quae in terris gignantur ad usum hominum omnia creari,...in hoc naturam debemus sequi*, where *creari* is similarly put for *creantur*. Holden in his note cites this passage, and also *R. P.* I 58 *si, ut Graeci dicunt, omnes aut Graios esse aut barbaros, vereor* &c.; cf. too *Verr.* IV 40 *tum primum, ut opinor, istum absentis nomen recepisse* (for *recepit*); *Orat.* III 3 *hic, ut saepe vidi...esse judicatum* (for *est judicatus*); *Leg.* I 55 *quia si, ut Chius Aristo dixit, solum bonum esse quod honestum esset,...valde a Xenocrate discreparet*, where *bonum esse* is put by attraction for *b. esset;* and in Greek Xen. *Anab.* VI 2 § 18 ὡς ἐγώ, ἀπὸ τοῦ αὐτομάτου χθὲς ἥκοντος πλοίου, ἤκουσά τινος, ὅτι Κλέανδρος μέλλει ἥξειν, where either ὅτι or ὡς is superfluous. See Heind. on Plato *Soph.* 263 παντάπασιν, ὡς ἔοικεν, ἡ τοιαύτη σύνθεσις, ἔκ τε ῥημάτων γιγνομένη καὶ ὀνομάτων, ὄντως τε καὶ ἀληθῶς γίγνεσθαι (for γίγνεται) λόγος ψευδής, also Krüger *Untersuchungen* §§ 164 and 166. [Add Böckh *Kl. Schr.* VII 67, Porson and

Schäfer on Eur. *Or.* 1035, K. F. Hermann on Lucian *Hist. Conscr.* 23 p. 149. J. E. B. M.]

**non colore, non qualitate**: as Lucr. proves II 737 *nullus enim color est omnino materiai corporibus, neque par rebus, neque denique dispar* foll., where Munro quotes Epicurus ap. Diog. X 54 *τὰς ἀτόμους μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματι συμφυῆ ἐστί.* **qualitas** invented by Cic. (*Acad.* I 24), as *ποιότης* by Plato (*Theaet.* 182 A).

**non sensu praeditis**: Lucr. II 865 *nunc ea quae sentire videmus cumque, necesse est ex insensilibus tamen omnia confiteare principiis constare.*

**innumerabiles mundos**: cf. I 53 and 67.

**in omni puncto**: 'within each moment'. The preposition has the effect of dwelling on the thought. Exx. are given by Dumesnil on *Leg.* I 8.

**et multo quidem**: the MSS add *faciliora*, on which Madv. says *miram orationis formam: was minder schwer ist und zwar weit leichter! 'Faciliora' additum ab aliquo qui non intellexerat 'et multo quidem' pertinere ad 'minus operosa'.* For similar interpolation see I 86 *id esse mortale* after *si quid sit.* For *et quidem* see above §§ 27 and 41.

**caeli ornatum** = *κόσμον*, cf. below §§ 115, 118, *Acad.* II 119 (no power can cause) *ut hic ornatus umquam dilapsus occidet.*

**qui locus est proximus**: acc. to the programme in § 75, but Balbus has been engaged upon it for some time.

C c (5). *Custom blinds men, or they could not fail to acknowledge that the wonders of nature are the work of God.* §§ 95—98.

§ 95. **Aristoteles.** On this passage see Bywater *J. of Phil.* VII p. 82 foll. He considers that C.'s debt to Arist. begins sooner (*quodsi mundum* &c.) and compares Philo *Leg. Al.* III 32 p. 107 M. *ἐζήτησαν οἱ πρῶτοι πῶς ἐνοήσαμεν τὸ θεῖον. εἶθ' οἱ δοκοῦντες ἄριστα φιλοσοφεῖν ἔφασαν ὅτι ἀπὸ τοῦ κόσμου καὶ τῶν μερῶν αὐτοῦ καὶ τῶν ἐνυπαρχουσῶν δυνάμεων ἀντίληψιν ἐποιησάμεθα τοῦ αἰτίου. ὥσπερ γὰρ εἴ τις ἴδοι δεδημιουργημένην οἰκίαν ἐπιμελῶς προπυλαίοις στοαῖς ἀνδρῶσι γυναιτωνίτισι, τοῖς ἄλλοις οἰκοδομήμασιν, ἔννοιαν λήψεται τοῦ τεχνίτου—οὐ γὰρ ἄνευ τέχνης καὶ δημιουργοῦ νομιεῖ τὴν οἰκίαν ἀποτελεσθῆναι, τὸν αὐτὸν δὲ τρόπον καὶ ἐπὶ πόλεως καὶ νηὼς καὶ παντὸς ἐλάττονος ἢ μείζονος κατασκευάσματος—οὕτω δὴ καὶ εἰσελθών τις ὥσπερ εἰς μεγίστην οἰκίαν ἢ πόλιν τόνδε τὸν κόσμον καὶ θεασάμενος οὐρανὸν ἐν κύκλῳ περιπολοῦντα καὶ πάντα ἐντὸς συνειληφότα, πλάνητας δὲ καὶ ἀπλανεῖς ἀστέρας κατὰ ταὐτὰ καὶ ὡσαύτως κινουμένους ἐμμελῶς τε καὶ ἐναρμονίως καὶ τῷ παντὶ ὠφελίμως, γῆν δὲ τὸν μεσαίτατον χῶρον λαχοῦσαν, ὕδατος τε καὶ ἀέρος χύσεις ἐν μεθορίῳ τεταγμένας...λογιεῖται δήπου ὅτι ταῦτα οὐκ ἄνευ τέχνης παντελοῦς δεδημιούργηται, ἀλλὰ καὶ ἦν καὶ ἔστιν ὁ τοῦδε τοῦ παντὸς δημιουργὸς ὁ θεός.* Bernays *Dial. d. Arist.* p. 104 foll. compares it with the short abstract in Sext. Emp. IX 20, noticing that the grounds for belief there given are not fear or utility, but on the one side the soul's original presentiment of a

Divine being and on the other the beauty of the external universe: and so here, the cave-dwellers are supposed to have an original belief in God, which is afterwards confirmed by the wonders of nature. On the Dialogue *περὶ φιλοσοφίας* from which Cic. is quoting, see I 33, II 42, 44.

**sub terra:** probably suggested by the famous simile in Plato's *Rep.* VI, perhaps also by traditions of Troglodytes. So Porphyry, in his *de Antro Nympharum*, treats Homer's grotto of the nymphs, *ἄντρον ἐπήρατον ἠεροειδὲς ἱρὸν Νυμφάων* (*Od.* XIII 103 foll.), as an allegory of the world: *διὰ μὲν οὖν τὴν ὕλην ἠεροειδὴς καὶ σκοτεινὸς ὁ κόσμος, διὰ δὲ τὴν τοῦ εἴδους συμπλοκὴν καὶ διακόσμησιν καλός τέ ἐστι καὶ ἐπήρατος*, adding that caves were therefore regarded as sacred places, and that the descent into a cave was customary in the initiation to certain mysteries.

**illustribus:** 'well-lighted', cf. Columella I 6 *balnearia occidenti aestivo advertantur, ut sint usque in vesperem illustria.* Arist. describes his cave-dwellers as civilized in their habits and therefore fitted to appreciate the beauties of nature; not like the Troglodytes of Herodotus. For the Abl. *domiciliis* Dumesnil (*Leg.* III 22) cites *Verr.* II 136 *omnibus oppidis regnasse*, ib. IV 117, *Aen.* VI 673 *lucis habitabat opacis.* Perhaps however it is better to take it as an Abl. of Attendant Circumstances.

**qui beati putantur:** 'who are reckoned well off'. Cf. *pro Tullio* 19 *deinde iste paterfamilias Asiaticus beatus*, where Beier cites 2 *Cat.* 20 *aedificant, tamquam beati*, *Off.* II 69 *qui se locupletes, honoratos, beatos putant;* cf. Hor. *Od.* III 7 3, *Sat.* II 8 1; so *μάκαρ* and *εὐδαίμων* in Greek. Observe the quadruple relative subordination *qui—quae—quibus—qui.*

**fama et auditione:** cf. *Fam.* VIII 1 *accipere auditionem*, and above § 89 *cantum et auditum.*

**exire atque evadere:** I have followed Allen in transposing *exire:* see Critical Notes.

**efficientiam:** C. uses the same word *Fat.* 19 *causas cohibentes in se efficientiam naturalem.*

**quod is efficeret:** more usual would have been *qui efficeret* or *efficientis.*

**cognovissent—cognovissent:** see Index under 'Repetition' and n. on § 145 *vitia cognoscunt.*

**toto caelo:** 'a thing over which motion takes place requires a preposition, or is put in the ablative with *totus*, the whole over which being conceived as one place at which' the action is performed. Cf. *toto corpore* 138, 139, 141, and see Roby § 1083.

**in omni aeternitate:** cf. above §§ 36 and 51.

**quae cum viderent:** the construction of the sentence is *si essent qui habitavissent—nec tamen exissent...accepissent autem...deinde exire potuissent ...cum vidissent solem, ejusque cum magnitudinem tum efficientiam cognovissent...cum autem terram nox opacasset, tum caelum cernerent...quae cum viderent...arbitrarentur.* It is plain that the apodosis would regularly have been introduced by a demonstrative clause *haec cum vid.* instead of *quae,*

and so Lamb. proposed to read; but Heind. replies that C. has ended the sentence as though he had begun with *fingamus esse hominem*, and Bywater l. c. thinks there may have been a similar anacoluthon in the original Greek, such as we find in Plat. *Rep.* VII 519 B ὧν εἰ ἀπαλλαγὲν περιεστρέφετο.

Ch. XXXVIII § 96. **eruptione**: Georges cites from Seneca *e cavernis maris ignium eruptio.* [Add *N. Q.* II 56 § 2 *e nubibus subitae lucis eruptionem;* ib. 54 § 2 (*quicquid in aera sicci fumosique pervenit*) *si inclusum est, fugam quaerit et cum sono evadit ac modo universam eruptionem facit, modo per partes.* J. E. B. M.] Posidonius, as we learn from Seneca's *Nat. Quaest.*, paid much attention to volcanic phenomena. There was an eruption of Etna about the time when Cic. wrote this book, cf. Liv. ap. Serv. on *Geo.* I 471 *tanta flamma ante mortem Caesaris ex Aetna monte defluxit, ut non tantum vicinae urbes, sed etiam Rhegina civitas afflaretur;* and the famous description of an eruption of Vesuvius in Plin. *Ep.* VI 20. For Aetna see Lucr. I 722—725, VI 680 foll., V. *Aen.* III 570, and the anonymous poem on the subject.

**nemo hominem homo**: instead of the adjective *nullus* the substantive *nemo* is frequently (regularly by Cic. according to Reid *Sulla* 25) joined to other substantives denoting male persons, cf. above § 81, where *nemo opifex* is joined with *nulla ars*, Zumpt § 676, who cites *neminem poetam Tusc.* V 22, *nemo pictor Off.* III 2, *homo nemo Fam.* XIII 55: for other exx. of the last see *Verr.* I 15, V 65, *Font.* 29, *Sulla* 25, *p. Dom.* 107, *Att.* IV 1 § 5, Ter. *Ad.* 259, *Hec.* 281, *Eun.* 549, *Phorm.* 591, Holtze *Synt. pr. scr. Lat.* I 343, 409, Sanct. *Minerv.* IV 4 n. 37, *N. D.* I 78 (where the note should be modified in accordance with the present). [*Acta Semin. Erlang.* (1880) II 51. J. E. B. M.]

**tum ut revixisse**: for the repetition of *ut* Madv. § 480 compares *Verr.* IV 23 *Verres Archagatho negotium dedit ut, quicquid Haleutii esset...ut omne statim deportaretur.* See also *Fin.* V 10, *Divin. Verr.* 72, *Verr.* V 28, *Acad.* II 139, Ter. *Phorm.* 153.

**hoc**: explained by *ut subito aspiceremus*, cf. I 44.

**quaenam species**: exclamatory, 'how beautiful would it appear', cf. below § 100 *quae species universi!*

**assiduitate cotidiana**: cf. above § 45 and III 20, *Tusc.* I 38, *ad Herenn.* III c. 22 *solis exortus, cursus, occasus nemo admiratur, propterea quod cotidie fiunt, at eclipses solis mirantur quia raro accidunt...docet ergo se natura volgari et usitata re non exsuscitari; novitate vero et insigni quodam negotio commoveri;* Seneca *N. Q.* VII 1 *ita compositi sumus ut nos cotidiana, etiam si admiratione digna sunt, transeant; contra minimarum quoque rerum, si insolita prodierint, spectaculum dulce fiat. Hic itaque coetus astrorum, quibus immensi corporis pulchritudo distinguitur, populum non convocat. At cum aliquid ex more mutatum est, omnium vultus in caelo est. Sol spectatorem, nisi cum deficit, non habet. Nemo observat lunam nisi laborantem...Adeo naturale est magis nova quam magna mirari;* Lucr. II 1030—1039 (of a first sight of the heavens) *ita haec species miranda fuisset, quam tibi jam nemo fessus satiate videndi, suspicere in caeli dignatur lucida*

*templa;* Gregor. *Hom.* 26 *in Evang. quotidiana Dei miracula ex assiduitate viluerunt;* August. *Serm.* 242, *Enarr. in Psalm.* cx 4, Trench *Miracles* Intr. c. 2. [Philo *Vit. Moys.* I 38 (II 114 M) says that miracles are θεοῦ παίγνια, while His great marvels are the orderly works of nature, sun moon and stars, air earth and water, living creatures and plants; but familiarity has bred contempt: ἀλλὰ ταῦτα μέν, πρὸς ἀλήθειαν ὄντα θαυμάσια, καταπεφρόνηται τῷ συνήθει. J. E. B. M.] For constr. (Abl. of Cause) cf. *Acad.* II 57 *ut mater geminos internoscit consuetudine oculorum, sic tu internosces si assueveris.*

§ 97. **hominem**: in pregnant sense, possessed of human feeling, human understanding, as *Att.* II 2 Ἡρώδης *si homo esset, eum potius legeret; Leg.* II 16 *quem astrorum ordines...non gratum esse cogunt, hunc hominem omnino numerari qui decet?*

**conexa et apta**: see above 37, 47, and III 4 *apta inter se et cohaerentia.*

**quanto consilio gerantur, nullo consilio assequi possumus**: cf. § 115 *non modo ut fierent ratione eguerunt,* &c.; *Leg.* II 16 *neminem esse oportere tam stulte arrogantem, ut ea quae vix summa ingenii ratione comprehendat, nulla ratione moveri putet.*

**an cum—videmus—non dubitamus; cum autem—videamus—dubitamus?** on the form of the sentence see § 17 n. Madv. changed *videamus* to *videmus.* I think C. may have preferred the Subj. in order to avoid a hexameter ending, and that there is no objection to it, if we understand it to mean 'although'.

**horas** = *horologium,* see above § 87, and compare *Orat.* 200 *videt oscitantem judicem...mittentem ad horas* (i.e. sending a messenger to see the time), Petron. 71, Mayor on Juv. x 216 and Plin. *Ep.* III 1 § 8. Nägelsb. § 12 2 cites this as an instance of a concrete plural used to express the science which treats of the things referred to, or the art which uses them, or the instrument of the science or art (cf. above n. on *ars* § 87); e.g. *Fin.* I 72 *(an ille) se, ut Plato, in musicis, geometria, numeris, astris contereret? quae et, a falsis rebus profecta, vera esse non possunt, et, si essent vera, nihil afferrent; N. D.* III 74 *tum haec cotidiana, sicae, venena* (this is the reading of all the MSS), *peculatus, testamentorum quaestiones,* where *sicae* and *venena* stand for their employment, 'assassination', 'poisoning'. For the elaborate mechanism of some of the *horologia* see the account of one made by Ctesibius in Vitr. IX 8.

**impetum caeli moveri**: 'the whole sweep (compass) of the heaven revolving', cf. Lucr. v 200 *quantum caeli tegit impetus ingens,* which Munro translates 'all the space that the vast reach of heaven covers', and says in his nn. there and on IV 416 *(despectum praebet sub terras impete tanto, a terris quantum caeli patet altus hiatus)* that *impetus* denotes size, a meaning 'which seems to be derived from the primary meaning of force and vehemence'. He compares VI 186, v 913, Caesar *B. G.* III 8 *in magno impetu maris atque aperto* side by side with c. 9 *in*

*vastissimo atque apertissimo Oceano.* In Vitr. VIII praef. 3 *solis impetus* seems to mean no more than *solis vis:* there is a difficult use in the *Brutus* of Attius quoted *Div.* I 44, *cum jam quieti corpus nocturno impetu dedi,* where some take it 'at nightfall', others 'during the nightly revolution'. Moser (ms n.) cites *Manil.* 34 *quis umquam...tantos cursus conficere potuit quam celeriter Cn. Pompeio duce tanti belli impetus navigavit?*, where C. contrasts the rapid movement of a single vessel with the delays which would naturally attend the sailing of a great fleet: Halm translates 'Kriegssturm', but I am not sure that the idea of vastness is not here too the prominent one. In the present passage, if we take *impetum* in the ordinary sense of 'the rush of heaven', there would be an unnecessary repetition in the use of *moveri* afterwards, as in *conjunctio continetur* § 84 and *R. P.* VI 18 *caeli stellifer cursus acuto movetur sono.*

**cum celeritate**: cf. § 59 *molientium cum labore*, 55 *cursus cum admirabili constantia*, below § 142 and Madv. § 257. **cum summa salute**: *cum* here expresses the result, see above § 80 *inesse cum magno usu*, and Index.

**excellenti**: Baiter on *Tusc.* III 3 states that the Abl. in *i* is regularly found in Cic. in the case of adjectives, or participles used as adjectives.

C d. *A review of the wonders of nature.* §§ 98—153. (1) *The earth and the other elements.* §§ 98—101.

§ 98. **remota subtilitate**: cf. *remoto joco Fam.* VII 11.

**oculis quodam modo**: cf. 99 *si, ut animis, sic oculis videre possemus*, 161 *licet animis, tamquam oculis, lustrare terram.*

Ch. XXXIX. **ac principio**: resumes § 91 *principio terra sita* &c.

**locata in media sede**: cf. *Orat.* III 176, *Acad.* II 122, *Tusc.* I 68, *R. P.* VI.

**ipsa in sese nutibus suis conglobata**: 'gathered into a ball by the natural gravitation of all its parts'; cf. *Orat.* III 178 *terra ut media sit, eaque sua vi nutuque teneatur*, below § 117 *astra se et nisu suo conglobata continent et forma ipsa sua momenta sustentant;* § 116 (of the sea) *medium locum expetens conglobatur;* Plato *Phaedo* 109 A πέπεισμαι...εἰ ἔστιν ἐν μέσῳ τῷ οὐρανῷ περιφερὴς οὖσα (ἡ γῆ) μηδὲν αὐτῷ δεῖν μήτε ἀέρος πρὸς τὸ μὴ πεσεῖν μήτε ἄλλης ἀνάγκης μηδεμιᾶς τοιαύτης, ἀλλ' ἱκανὴν εἶναι αὐτὴν σχεῖν τὴν ὁμοιότητα τοῦ οὐρανοῦ ἑαυτῷ πάντη, καὶ τῆς γῆς αὐτῆς τὴν ἰσοῤῥοπίαν· ἰσόῤῥοπον γὰρ πρᾶγμα ὁμοίου τινὸς ἐν μέσῳ τεθὲν οὐχ ἕξει μᾶλλον οὐδ' ἧττον οὐδαμόσε κλιθῆναι, ὁμοίως δ' ἔχον ἀκλινὲς μενεῖ, Arist. *Cael.* II 14 § 9.

**vestita floribus**: cf. just below *riparum vestitus*, and § 132 *montes vestiti.*

**insatiabili varietate**: Act. force, 'ever new', 'of which we are never tired'; apparently used in this sense by Cic. alone. It occurs below § 155, and *Hort.* fr. 45 *caeli signorum admirabilem ordinem insatiabilemque pulchritudinem.* For the Act. force of Adjectives in *-bilis* see *patibilis* III 29

*penetrabilis, genetabilis* (Lucr. I 11 Munro), *dissociabilis, terribilis, illacrimabilis* &c., and Nägelsb. § 117.

**fontium gelidas perennitates**: the Adj. in agreement with the concrete noun is changed into the corresponding abstract governing the Gen. Here the epithet makes the figure very bold, 'the cool unfailingness' for 'the unfailing coolness'; so below **liquores perlucidos** for 'liquid transparency', cf. above § 26 *liquor aquae*, and see Nägelsb. § 74. The plural of the abstract denotes a plurality of instances: Draeg. § 7 gives a list of all that occur, the greater number being from Cic., see above § 92 *magnitudinibus*, III 46 *immortalitatibus*, also Index under 'Abstract'.

**concavas amplitudines**: I have followed Ba. in adopting Heind.'s correction of the MS *altitudines*. However hastily he may have been writing, it is hardly likely that Cic. should have repeated the latter word, where variety is so evidently required. Otherwise *alt.* is found in this connexion in *Div.* I 97 *cum ad infinitam altitudinem terra desedisset;* 2 Verr. IV 107 *spelunca conversa ad Aquilonem infinita altitudine.*

**argenti venas**: so Xen. *Vect.* I 5 speaks of φλὲψ ἀργυρίτιδος.

**vim marmoris**: see I 54 and II 25.

§ 99. **qui lapsus**: 'what flights of birds'; cf. *Consol.* fr. 6 *castos leni quodam et facili lapsu ad deos pervolare* 'with an easy gliding movement', *Div.* I 106 (of the eagle) *praepetibus pennis lapsuque volantem; Phaenom.* 480 *emergunt alite. lapsu e terris volucres; Div.* I 17 (of the stars) *certo lapsu spatioque feruntur;* so *labor* often as in *Aen.* V 216, VI 202.

**pecudum—silvestrium**: opposed as *cicures* and *ferae* before.

**immanitate efferari**: cf. I 62 n.

**stirpium asperitate vastari**: 'to be overrun with weeds', esp. brambles, thistles &c.; cf. *Geor.* I 152 *subit aspera silva lappaeque tribulique. Stirpes* used improperly for plants, as above § 36, see Madv. *Fin.* IV 13. There seems no reason to give it the meaning of 'shrubs' here (L. and S. s.v.): it is distinguished from *arbores Fin.* V 33, *Phil.* II 55.

§ 100. **quae species universi**: 'how glorious when viewed as a whole!' (cf. § 96 *quaenam species*); *univ.* opposed to partial views of its islands and coasts, just as we have *terra universa* § 98.

**orarum**: coasts viewed as bounding the land; **litorum**: as bounding the sea.

**beluarum**: not felt to be incongruous with the following *inhaerentium* (shell-fish); cf. I 101 where it is used of the ibis and the cat.

**mare litoribus alludit**: it is curious that in almost every passage where the verb *alludere* is read, the MSS waver between *eludit, elidit, allidit,* sometimes *alluit, cludit* or *claudit,* e.g. *Topica* 32 *solebat Aquillius... quaerentibus quid esset litus, ita definire 'qua fluctus alluderet': hoc est, quasi qui adulescentiam florem aetatis; ... translatione utens discedebat a verbis propriis rerum ac suis.* The comment here shows that the word must be either *alludo* or *eludo,* as the others would not be used metaphorically. The same derivation is given in Quintil. V 14 § 35, where Spalding

reads *litus qua fluctus eludit.* L. and S. support this reading here, in the sense of 'cease to play', but the only authority for such a meaning is Donatus speaking of the end of gladiatorial games; Georges gives a more possible sense 'playfully running out on the shore'. Gesner on Colum. IV 20 prefers the reading *allidit* in these passages, and quotes Isidorus *Etym. dictum 'litus' quia fluctus eliditur.* For other exx. see Plin. *H. N.* XXVI 22 *Tripolium in maritimis nascitur saxis ubi alludit unda;* Ov. *Met.* IV 342 *in adludentibus undis summa pedum taloque tenus vestigia tinguit;* Statius *Theb.* IX 336 *extremis alludunt aequora plantis;* Seneca *Oedip.* 266 *pater Neptune, qui fluctu brevi utrimque nostro geminus alludis solo;* Catull. LXIV 66 *ipsius ante pedes fluctus salis alludebant;* Avienus *Descr. Orb. T.* 121 *insula qua Cyrnus fluctu madet alludente;* and the difficult passage in Min. F. 3 (*mare*) *etsi non canis spumosisque fluctibus exibat ad terram, tamen crispis torosisque. Ibidem erroribus delectati perquam sumus, cum in ipso aequoris limine plantas tingeremus, quod vicissim nunc appulsum nostris pedibus alluderet, fluctus nunc, relabens ac vestigia retrahens, in sese resorberet.* If we may assume that the same word is used in all these passages, I think there is none so appropriate in all as *alludo:* the metre forbids us to think of *alluo, cludo* or *claudo; elido* is too strong, and *eludo* does not suit the quotations from Statius and Minucius. Sch. (*Opusc.* III 333) thinks the reading *cludit* may have had its origin in the old form of *ludo* (*cludo*): Mu. supposes the reading *eludit* to have arisen from *aludo*, a repeated consonant being frequently dropped, as in *malem* for *mallem* above § 2.

**terram appetens**: cf. Plin. *N. H.* XI 103 § 250 *appetere dexteram osculis;* for the thought, Eurip. fr. 839[2] Dind. (Athen. p. 599 f.) *ἐρᾷ μὲν ὄμβρου γαῖα...ἐρᾷ δ' ὁ σεμνὸς οὐρανὸς πληρούμενος ὄμβρου πεσεῖν εἰς γαῖαν Ἀφροδίτης ὕπο. Ὅταν δὲ συμμιχθῆτον ἐς ταὐτὸν δύο, φύουσιν ἡμῖν πάντα καὶ τρέφουσ' ἅμα*; Theod. *Provid.* p. 508 Sch. *βλέπε τῆς θαλάσσης τὴν πρὸς τὴν χέρσον φιλίαν.* In such expressions we have a reminiscence of the *φιλία* and *νεῖκος* of Empedocles. Keble has something like it in the *Christian Year*, 2nd Sunday after Trinity, 'Still as the surging waves retire, they seem to gasp with strong desire; such signs of love old Ocean gives, we cannot choose but think he lives'.

**una ex duabus conflata**: 'the two elements seem fused into one', a metaphor from the smelting of metals, cf. *Lig.* 34 *consensus conspirans et paene conflatus; Invent.* II 8 *ex his duabus sicuti familiis...unum quoddam est conflatum genus; Cael.* 12 *monstrum ex contrariis cupiditatibus conflatum.* The reference is to the continuity and interchangeability of the elements, on which see § 84 and § 117 *aer mari continuatus et conjunctus est...aether cum aeris extremitate conjungitur.*

§ 101. **mari finitimus aer**: cf. 26, 27, 40, 66.

**distinguitur**: 'shows the contrasted hues of day and night', i.e. part of the atmosphere is in darkness while the other part is illuminated by the sun's rays; hence as a whole it is parti-coloured. Sch. compares Ov.

*Met.* XV 189 *nec color est idem caelo cum lassa quiete cuncta jacent media, cumque albo Lucifer exit clarus equo.*

**isque**: pleonastic Demonstrative as in § 102, cf. § 27 *ea et ipsa* n. and Index.

**tum fusus—tum concretus—tum effluens**: there are thus three metamorphoses of air: it is rarified and becomes ether (cf. § 84), or it thickens and becomes cloud and water, or it is agitated and becomes wind, cf. *Div.* II 44 *placet Stoicis eos anhelitus terrae qui frigidi sunt, cum fluere coeperint, ventos esse; cum autem se in nubem induerint* (they under certain circumstances produce lightning), *Tusc.* I 43, Sen. *N. Q.* III 12 *ventus est fluens aer.*

**sublime fertur**: cf. n. on § 44 *in sublime ferri.*

**facit varietates**: the Stoic goes too far in saying that the air causes the changing degrees of cold and heat; it only tempers them. **annuas** is here used in the same sense as *anniversarias* in § 97.

Ch. XL. **a domiciliis altissimus**: the preposition is justified by the preceding *ultimus* which merges with *alt.* in thought.

**coercens caeli complexus**: cf. above § 58 (*mundus*) *omnia complexu suo coercet.*

**determinatio**: apparently a term borrowed from the art of land-surveying, see *Grom. Vet.* 244. 14, 202. 16.

**cum admirabilitate**: cf. *cum salute* § 97 and Index. On *aether* see I 37 n.

C d (2). *The sun, moon and planets.* §§ 102, 103.

§ 102. **cujus magnitudine multis partibus terra superatur**: see above § 92 nn.

**binas reversiones**: cf. § 49, Lucr. V 614.

**quarum in intervallo**: 'during which', lit. in the interval (between the extreme points) occupied by these returns, 'he is at one time contracting, as it were, the face of the earth in gloom, at another restoring it to gladness'. For the metaphorical use of *contraho*, suggested by the contracted brow and pinching cold ('makes it peak and pine'), see *Leg.* II 38 *cantus tum remittit animos, tum contrahit;* Lucr. V 1219 *cui non animus formidine divum contrahitur* ('shrink into itself' Munro). For the positive statement of a negative idea in *sol contrahit*, see *sol opacet* § 49 n.

§ 103. **major quam dimidia pars terrae**: the actual diameter of the moon is 2160 miles, rather more than $\frac{1}{4}$ that of the earth, and her bulk about $\frac{1}{49}$ of the earth (Herschel § 404). Anaximander and Xenophanes are said to have made the moon 19 times larger than the earth (Stob. *Ecl.* I c. 26, Lact. III 23); Epicurus of course held that *nihilo fertur majore figura quam nostris oculis qua cernimus esse videtur* (Lucr. V 577): the Stoics generally made it larger than the earth, Stob. l. c. and Plin. *H. N.* II 11 *non posset totus sol adimi terris intercedente luna si terra major esset quam luna.* Posidonius is said to have shared this view (Stob. l. c.), but Zeller, Hirzel

(p. 193 n.) and Diels (*Doxogr.* p. 68 n.) are agreed in thinking this a mistake; as Cleomedes, who confesses that he for the most part follows Posidonius (ad fin. τὰ πολλὰ ἐκ τῶν τοῦ Ποσειδωνίου εἴληπται), agrees here with Cic.: 'in the moon's eclipse it is seen that the breadth of the earth's shadow (through which she passes) is twice the moon's diameter', from which we may infer that her diameter is half that of the earth. We may even find a parallel to *major*, which looks as if it ought to have had a *paulo* or *aliquanto* before it; but in Cleomedes the earth's diameter, which is the measure of that of the moon, is thus given, δεῖ τὴν διάμετρον αὐτῆς πλέον ἢ ὄκτω μυριάδων εἶναι, 'by the calculation of Eratosthenes who made its circumference 250,000 stades'. Cleom. II 1 p. 80.

**isdem spatiis**: the zodiac. For the Abl. of Place cf. § 95 *toto caelo* and Index.

**subjecta**: 'in conjunction', ἐν συνόδῳ, lit. 'placed under', i. e. interposed between the earth and the sun.

**opposita**: 'hiding', lit. 'put in front of'. Cf. *Div.* II 17 *solis defectiones, item lunae praedicuntur in multos annos ab iis qui siderum motus numeris persequuntur...vident ex constantissimo motu lunae, quando illa e regione solis facta incurrat in umbram terrae, quae est meta noctis, ut eam obscurari necesse sit: quandoque eadem luna, subjecta atque opposita soli, nostris oculis ejus lumen obscuret; R. P.* I 25 *solem lunae oppositu solere deficere Thaletem primum vidisse ferunt*, and just above, *certo illud tempore fieri cum tota se luna sub orbem solis subjecisset;* Plin. *N. H.* II 11 foll. The Epicurean explanation is given by Lucr. V 751 foll.

**e regione**: 'in opposition', lit. 'in a line with', 'according to the direction of'; cf. force of *rego* in *derigo, surgo*, &c.

**incitantur—retardantur**: repeats § 51.

C d (3). *The Constellations as described by Aratus.* §§ 104—115.

§ 104. **maxima multitudo**: Plin. *H. N.* II 24 *Hipparchus...ausus rem etiam deo improbam, adnumerare posteris stellas ac sidera ad nomen expungere.* He is said to have counted 1080: Pliny himself has no scruple in telling us that 1600 had been distinguished by astronomers, when he wrote.

**ita descripta distinctio est**: 'the grouping of which is so clearly defined', cf. § 15 *siderum omnium distinctionem;* and *Phaenom.* 160 *nam quas sideribus claris natura polivit et vario pinxit distinguens lumine formas, has ille astrorum custos* (the astronomer) *ratione notavit, signaque signavit caelestia nomine vero:* these are opposed to the stars which could not be grouped so as to distinguish them.

**ex notarum figurarum similitudine nomina invenerint**: 'from their resemblance to familiar objects'. So Vitr. IX 5 § 4 *quae figurata formataque sunt siderum in mundo simulacra natura divinaque mente designata, ut Democrito placuit, exposui;* Plin. *N. H.* II 3 *esse innumeras ei (mundo) effigies animalium rerumque cunctarum impressas,...rerum argumentis indicatur; quoniam inde deciduis rerum omnium seminibus*

*innumerae in mari praecipue ac plerumque confusis monstrificae gignantur effigies; praeterea visus probatione, alibi plaustri, alibi ursi, tauri alibi, alibi literae figura* &c. But Manilius I 457 warns against looking for too close resemblance, *tu modo corporeis similes ne quaere figuras...linea designat species...satis est si se non omnia celant;* and Sext. Emp. V 96, confuting astrology, asks 'Why should one born under Leo be brave or under Virgo beautiful? These names were merely given for the sake of convenience in teaching. There is no connexion between the things', *τί γὰρ ὅμοιον ἔχουσιν ἄρκτῳ οἱ ἑπτὰ ἀστέρες διεστῶτες ἀπ' ἀλλήλων, ἢ δράκοντος κεφαλῇ οἱ πέντε;* Ambros. *Hex.* IV 15.

(§ 110). **atque ita dimetata—appareat.** I have ventured to transpose this clause, which, as Heind. had observed, is quite inappropriate in the place where it stands in the MSS. There is nothing corresponding to it in the passage of Aratus, which C. is there translating. We may compare it with another passage thus translated by C. (*Phaenom.* 302 foll.) *ut nemo cui sancta manu doctissima Pallas sollertem ipsa dedit fabricae rationibus artem, tam tornare cate contortos possiet orbes, quam sunt in caelo divino numine flexi* &c. **dimetata**: MSS have *demetata*, a form which appears not to be found elsewhere. The correction was made by Gronov. on Liv. VIII 38 *locum castris dimetari jussit.* In § 155 Orelli's MSS all have *dimetati* (dep.) except $V^1$ which has *demetati.*

**tantis discriptionibus**: 'these grand configurations'.

Ch. XLI. **me intuens**: cf. I 17.

**Arati eis**: 'I will make use of the verses of Aratus, those, I mean, which you translated'. The reading of the MSS was changed into *Arateis* by Walker; but, if Cic. had used that form, I think he would simply have said *utar Arateis tuis;* as he calls his own verses by this name, *Div.* II 14 *nostra quaedam Aratea a te pronuntiata sunt*, and *Leg.* II 7 *sicut in Arateo carmine orsi sumus.* Aratus, a native of Soli in Cilicia, fl. towards the end of the 3rd century B.C., spent the greater part of his life at the court of Antigonus Gonatas, king of Macedonia, who is said to have suggested to him to translate into verse the Φαινόμενα and Ἔνοπτρον of the astronomer Eudoxus, a pupil of Plato often cited by Aristotle. We possess two poems, or two parts of one poem, by Aratus, the Φαινόμενα, which contains a description of the constellations, and the Διοσημεῖα, borrowed from Hesiod and Theophrastus, which treats of prognostics of the weather. Both were translated by Cic., who is however by no means extravagant in praise of his author, cf. *R. P.* I 22 *sphaerae omnem ornatum et discriptionem sumptam ab Eudoxo multis annis post, non astrologiae scientia, sed poetica quadam facultate versibus Aratus extulit.* Yet this mediocre poet had the honour of being quoted by St Paul (Acts xvii 28), translated by Cicero, Germanicus (the adopted son of Tiberius, not, as Sch., Domitian, cf. Teuffel *R. L.* § 270), and Festus Avienus in the 4th cent. A.D., and commented on by the great astronomer Hipparchus, who wrote a treatise in three books, contained in the *Uranologion* of Petavius,

pointing out the errors of Eudoxus and Aratus; thus he says p. 173, *θεωρῶν τοῖς πλείστοις καὶ χρησιμωτάτοις διαφωνοῦντα τὸν Ἄρατον πρὸς τὰ φαινόμενα*, 'I determined to correct his mistakes', and by a host of others. Ovid (*Am.* I 15 16) says of him *cum sole et luna semper Aratus erit*, and Maximus Tyrius considers him equal to Homer. We possess about two-thirds of C.'s translation of the *Phaenomena* besides the fragments which are given here. Of the *Prognostica* a few lines are quoted in other parts of C.'s works. The great orator seems to have been somewhat vain of his verses; according to Plutarch (*Cic.* 53) he boasted of writing 500 lines in one evening; he quotes a long passage from the *De Consulatu* in *Div.* I 17, from the *Marius* in *Leg.* I 2, a translation from Homer in *Div.* II 63, besides shorter quotations elsewhere. Mention is often made of his poems in his letters to his brother; thus in II 16 he is uncomfortable under Caesar's criticism; in III 1 we see him vainly trying to work himself up to the effort of a poem on Caesar's conquests, *abest ἐνθουσιασμός*. The greater part of his poetry was written before he was twenty, but two of the most important poems, that on his Consulship and that on his own times, were written between the years 61 and 54 B.C. Though Juvenal (X 120), Quintilian (XI 1 § 24), Tacitus (*Dial.* 21), and Seneca (*Exc. Contr.* III *pr.* 8) speak slightingly of his poetical faculty, yet Plutarch (l. c. 2) tells us that he enjoyed a high poetical reputation, till it was thrown into the shade by his orations (like Scott's poetry by his novels), and he certainly led the way to the didactic poetry of Lucretius and Virgil, cf. Patin *Poésie Latine* II 415—478. The former indeed studied him carefully, as is shown by Munro I p. 99: C.'s translation 'shows much spirit and vivacity of language, though its poetical merits cannot be compared beside those of Lucretius. Yet the latter...moved, it may be, by his general admiration for the man, had made this youthful production one of his models of style, as may be demonstrated, not by one or two, but by twenty manifest imitations of the few hundred lines still existing'. Examples of this are shown, as to rhythm p. 104, alliteration p. 106, and in the notes on I 287, 486, V 619, 692 &c. Those who are interested in the Stoical argument will be apt to complain of C. for foisting in a quantity of his own lines, which to us appear very insignificant; but it must be remembered that the Romans were without any regular catalogue of the stars, and that just at this time there was a growing belief in astrology, i.e. in the possible influence of the celestial groupings on the fortunes of men. The reader should have a celestial globe or map before him in order to understand what follows. We cannot be sure that the outlines given in our maps correspond with those of Aratus, so as to help us, for instance, to determine the meaning of the word *obstipus* in § 107, but any map will show the relative positions. There is a very interesting illustrated MS of C.'s translation of the *Phaenomena* in the Harleian Collection (no. 647) of the British Museum, of which a full account is given by Ottley in the *Archaeologia*, vol. 26. He assigns it to the 2nd or 3rd century, judging

mainly from the illustrations, but Mr E. M. Thompson of the Museum tells me that the MS itself cannot be older than the 9th century, though the illustrations are evidently copied from originals of a very much earlier date. In dealing with this part of my subject, I have continually felt the want of a really learned and philosophical history of the constellations, which should examine the various theories propounded as to their origin. It does not speak well for the present position of English science or scholarship, that it should be possible for a book to appear in 1882, revised by a well-known astronomer and displaying a long list of distinguished names as subscribers, in which it is seriously asked 'Could anything be more apparent than that this sign (*Virgo*) was invented by the patriarch Seth to teach the miraculous birth of Christ, and that it was so regarded by all his descendants through the world?' (*Moses and Geology* p. 423, ed. 3.)

**admodum adulescentulo**: probably in his 17th year. **assidue**: cf. § 96.

**cetera labuntur—feruntur**: translated fr. Aratus *Phaen.* l. 19 foll. *οἱ μὲν ὁμῶς πολέες τε καὶ ἄλλυδις ἄλλοι ἐόντες* (al. *ἰόντες*, which suits better C.'s *labuntur* and Germanicus' *vaga*) *οὐρανῷ ἕλκονται πάντ' ἤματα συνεχὲς αἰεί.* These are the *ἀστέρες* spoken of in l. 17, to which is opposed in l. 21 the unmoving axis, *αὐτὰρ ὁ γ' οὐδ' ὀλίγον μετανίσσεται· ἀλλὰ μάλ' αὔτως ἄξων αἰὲν ἄρηρεν.*

**noctesque diesque**: Munro remarks on the trochaic rhythm of this line (*Catull.* p. 153).

§ 105. **extremusque adeo—polus**: 'and just the tip from off (i.e. of) the double axle is called the pole' (i.e. 'the two ends of the axis are called poles'); Arat. 24 *καί μιν πειραίνουσι δύω πόλοι ἀμφοτέρωθεν.* *Cardo* is strictly the pivot on which a thing swings (*κραδαίνει*), cf. German. *Arat.* 19 *axis at immotus semper vestigia servat libratasque tenet terras et cardine firmo orbem agit*, Colum. I 1 § 4 (*Hipparchus prodidit*) *tempus fore cum cardines mundi loco moverentur:* here it is used for the axis itself, as in Varro *R. R.* I 2 § 4 *cardo caeli;* unless we take it 'the extreme point, starting from the pivot on either side, is called the pole.'

**polus**: a technical term borrowed from the Greek, cf. pseudo-Arist. *Mund.* 2 § 4 *δι' ὧν* (*πόλων*) *εἰ νοήσαιμεν ἐπεζευγμένην εὐθεῖαν, ἥν τινες ἄξονα καλοῦσι, διάμετρος ἔσται τοῦ κόσμου, μέσην μὲν ἔχουσα τὴν γῆν, τοὺς δὲ δύο πόλους πέρατα.* It is used by Varro (ap. Gell. III 10) for the Arctic and Antarctic circles; *circulos ait in caelo circum longitudinem axis septem esse, e quibus duos minimos, qui axem extimum tangunt, πόλους appellari dicit;* and so by Vitruv. IX 1 § 2 *caelum volvitur circa terram per axis cardines extremos...unum in summo mundo ac post ipsas stellas septentrionem, alterum sub terra in meridianis partibus, ibique circum eos cardines orbiculos* (whorls) *perfecit, qui Graece πόλοι nominantur.*

**dicitur esse**: used for simple *dicitur*, as below *dicitur esse Helice*, and § 109 *dicitur esse Bootes.*

**Arctoe**: cf. Homer *Il.* XVIII 487 (who speaks only of one Bear) *Ἄρκτον*

*θ' ἣν καὶ Ἅμαξαν ἐπίκλησιν καλέουσιν, ἥ τ' αὐτοῦ στρέφεται καί τ' Ὠρίωνα δοκεύει, οἴη δ' ἄμμορός ἐστι λοετρῶν Ὠκεανοῖο*; Aratus 26 *δύω δέ μιν ἀμφὶς ἔχουσαι Ἄρκτοι ἅμα τροχόωσι· τὸ δὴ καλέονται Ἅμαξαι*, Lewis *Astr.* p. 58 foll. The form *arctoe* is found in the *Phaenom.* 441, cf. *Adelphoe* in Ter., *canephoroe, cosmoe* in Cic.

**Cynosura**: 'the dog's tail', probably suggested by the circular sweep of three of the stars and then applied to the whole constellation. This and the following line are quoted in the *Acad.* II 66, where C. compares probable reasoning to the vaguer guidance of Helice, demonstrative reasoning to Cynosura. For a different application compare Milton's lines 'where perhaps some beauty lies, the Cynosure of neighbouring eyes'. Thales is said to have been the first to introduce the knowledge of the Lesser Bear into Greece from Phoenicia.

**altera dicitur esse**: for the rhythm cf. § 107 *verum tempora sunt*, and three consecutive lines in *Phaenom.* 172—174 *Propter Aquarius, Exiguo qui, E multis tamen;* also Munro p. 103 'we find in Lucr. hundreds of instances in which the first two feet are marked off from the rest of the verse...with two dactyls, as *Omnia denique sancta, Quippe potentia cum, Vertice Palladis ad*'.

**Helice**: the name is explained either from its revolving round the pole or from the screw-like curvature of the line connecting its stars; see Ideler *u. d. Ursprung d. Sternnamen* pp. 4—10. For the common myth see 'Callisto' in *Dict. of Biog.* According to Aratus they were two nymphs who nursed the newborn Zeus in Ida and were rewarded by being translated to heaven.

**totis noctibus**: so just below § 108 and *tota aestate* § 130; for the use of the Abl. with *totus* to express duration of time, see Plin. XVIII § 230 (*ova gallinis*) *subjicito aestate tota*, Suet. *Claud.* 44 *excruciatum doloribus nocte tota*, Roby § 1184, 1185, and cf. above § 95 n. on *toto caelo*.

**septem triones**: thus explained by Varro *L. L.* VII 74 *triones boves appellantur a bubulcis etiam nunc maxime cum arant terram...a terra terriones, unde triones:* Gellius II 21 says Aelius gave the same derivation, but that the word was no longer in use: Naevius, quoted by Isid. *Orig.* XII 1 § 30 (fr. l. 66 Ribb.) has *trionum hic moderator rusticus.* If we accept this explanation, the constellation was compared to seven oxen treading the corn and going round and round the threshing-floor, an entirely distinct conception from that of the wain with four stars representing the wheels and three the pole, called by Ennius *temo*, by Ovid *plaustrum.* Varro's etymology is of course absurd. A more probable explanation is that given by Max Müller (*Lect.* II 364), who connects *trio* with the Sanscr. *tara*, our 'star', and the Homeric *τείρεα* (*Il.* XVIII 485); see Curtius *Gr. Et.* § 205. Supposing the existence of two homonymous words, one meaning 'star' and the other 'ox', the identification of the two would be exactly parallel to the identification of the two meanings of the Sansc. *rikshas*, 'bright' and 'bear': the 'seven bright stars' were converted into 'seven

bears', and by the time the word had acquired its Greek form ἄρκτος, the older meaning 'bright' was entirely forgotten, see M. Mü. l. c. p. 359 foll. The secondary form *septentrio* may be compared with the sing. *quadriga*.

§ 106. **similiter distinctis**: 'similarly grouped', lit. 'dotted about'. Just below *magis distincta* seems to have another force 'more marked, clearly defined'.

**hac fidunt**: the passage in Aratus is as follows (l. 36 foll.): καὶ τὴν μὲν Κυνόσουραν ἐπίκλησιν καλέουσιν, τὴν δ' ἑτέρην Ἑλίκην. Ἑλίκῃ γε μὲν ἄνδρες Ἀχαιοὶ εἰν ἁλὶ τεκμαίρονται ἵνα χρὴ νῆας ἀγινεῖν, τῇ δ' ἄρα Φοίνικες πίσυνοι περόωσι θάλασσαν. Ἀλλ' ἡ μὲν καθαρὴ καὶ ἐπιφράσσασθαι ἑτοίμη, πολλὴ φαινομένη Ἑλίκη πρώτης ἀπὸ νυκτός, ἡ δ' ἑτέρη ὀλίγη μέν, ἀτὰρ ναύτῃσιν ἀρείων· μειοτέρῃ γὰρ πᾶσα περιστρέφεται στροφάλιγγι.

**Phoenices**: their practice in navigation taught them that the Lesser Bear was nearer the true north, cf. Arrian *Exp. Al.* VI 26, Ov. *Trist.* IV 3 1, *Fast.* III 106. Hence Milton calls it 'Star of Arcady (i.e. Callisto) or Tyrian Cynosure'.

**confestim**: 'immediately after night-fall', before the smaller stars are visible.

Ch. XLII. **has inter**: Aratus 45 τὰς δὲ δι' ἀμφοτέρας, οἵη ποταμοῖο ἀποῤῥώξ, εἰλεῖται μέγα θαῦμα Δράκων περί τ' ἀμφί τ' ἐαγὼς μυρίος, which Virgil more closely renders *G.* I 244 *maximus hic flexu sinuoso elabitur Anguis circum perque duas, in morem fluminis, Arctos;* cf. Seneca *Thyestes* 869, *Med.* 694.

**cum gurgite**: for this use of *cum* in place of the simple ablative cf. § 111 *cum cornibus*, § 112 *cum luce*, § 113 *cum corpore*, *Phaenom.* 215, ib. 146 *funestum magnis cum viribus amnem*, imitated by Lucr. I 287 (where Munro says 'Cic. in his Aratea quite revels in this use of *cum*'), see too Lucr. IV 1126.

**superaque**: noticed by Priscian (XIV 6 52) as an example of the archaic form, which is also found *Phaenom.* 79, 309, 335, 339, &c. The Dragon was usually identified with the Dragon of the Hesperides: other accounts are given in Hyginus and the Schol. to Aratus.

§ 107. **cum totius sit**: so Sch. instead of the Indic. of MSS, on the ground that the Subj. is preferred in a sentence where *prius membrum ampliorem afferat sententiam, sequente mox speciali supra illam quasi eminente.* I prefer this slight change to the insertion of *tum* with Ba. and Mu.

**huic non una**: Aratus 54 οὐ μὲν ἐκείνῃ οἰόθεν οὐδ' οἶος κεφαλῇ ἐπιλάμπεται ἀστήρ, ἀλλὰ δύο κροτάφοις, δύο δ' ὄμμασιν, εἷς δ' ὑπένερθεν ἐσχατίην ἐπέχει γένυος δεινοῖο πελώρου· λοξὸν δ' ἐστὶ κάρη, νεύοντι δὲ πάμπαν ἔοικεν ἄκρην εἰς Ἑλίκης οὐρήν.

**modo**: for the archaic quantity see Lachmann and Munro on Lucr. II 1135 *plura modo dispargit et ab se corpora mittit.*

**obstipum**=λοξόν, commonly it means 'bent forward', as in Hor. *Sat.* II 5 92 *stes capito obstipo multum similis metuenti*, Pers. III 80 *aerumnosique Solones obstipo capite et figentes lumine terram;* but, in Suet. *Tib.* 68, where

it is said that Tiberius showed his pride by walking *cervice rigida et obstipa*, Ernesti argues that it must mean 'bent back', and that the word does not necessarily imply more than 'stiffly bent' in whatever direction. Apparently it has the same force in Lucilius' line *resupinae obstipo capitulo sibi ventum fecere caniculae*, if I rightly understand it of ladies leaning back and fanning themselves. Lucretius uses it (IV 517) of a building out of the square, Columella (VII 10) of diseased pigs carrying their heads on one side *febricitantum signa sunt cum obstipae sues transversa capita ferunt;* Wüstemann on Hor. l. c. says it is technically used for a stiff neck in medical writers. I should translate therefore 'the head is slanted, thrown back from the shapely neck; you would say it fixed its gaze on the tail of the Great Bear'. I see no reason for changing the **a cervice** of the MSS either into *ac cervice* with Sch., or (still less) into *at cervice* with Madv.; the head is simply bent away from the line of the neck. The line is imitated by Lucr. I 35 *atque ita suspiciens tereti cervice reposta* (where see Munro on the word *teres*), and by Virg. *Aen.* VIII 633 of the wolf licking her cubs, *illam tereti cervice reflexam mulcere alternos.* Germanicus and Avienus seem to have mistaken the force of *νεύοντι*, the first translating *declive caput* (l. 61), the second *in nutum curvata* (l. 156), but there is no reason to suppose these equivalent to C.'s *obstipum*, as Forcellini. We may compare Vitruvius' description (IX 4) *Serpens intorta replicataque se attollens reflectitur a capite Minoris ad Majorem circa rostrum.*

§ 108. **totis noctibus**: see above § 105. **reliquum quidem corpus**: opp. to the following *hoc caput.*

**hoc caput**: C. is fond of this rather clumsy demonstrative, which is here however justified by the Greek (l. 61) *κείνη που κεφαλὴ τῇ νήχεται, ᾗχί περ ἄκραι μίσγονται δύσιές τε καὶ ἀντολαὶ ἀλλήλῃσιν.* Hipparchus explains this to mean that the head, the most southern part of the constellation, being precisely 37° from the pole, just touches the horizon in the latitude of Athens. It thus skims the surface of the ocean (the poetic word for horizon) at the point where its settings and risings meet. If it were further from the pole, the risings and settings would be separated by an interval; if nearer, there would be no setting; but it is *ἐπὶ τοῦ ἀεὶ φανεροῦ κύκλου*, which among the Greeks was called the Arctic circle, of course varying with the latitude: the Antarctic circle was *ὁ ἀεὶ ἀφανὴς κύκλος.* Hipp. would not have approved of C.'s translation of Aratus, for, in opposition to a commentator named Attalus, he expressly says *οὐ δύνει βραχὺν χρόνον καὶ ἀνατέλλει*: so the pseudo-Eratosthenes speaks of the *Δράκοντος κεφαλή* as being on the horizon.

**subito aequore condit**: Grotius' excellent emendation for the *subitoque recondit* of MSS. The phrase corresponds to *νήχεται* in the original. *Subito* is the Part. of *subire* (cf. Ov. *Fast.* I 313 (*Cancer*) *occiduas subibit aquas*): no other ex. of its use is recorded, but *subiturus, subeundus* are common enough, and we find Ov. *Met.* I 37 *ambitae terrae*, Cic. *Cornel.* fr. 36 *circumitis rostris*, *Verr.* I 125 *auctoritatem senatus exstare haereditatis aditae*

*sentio*, Liv. XXVIII 12 *Hispania prima inita provinciarum;* so *morte obita, praeteritus*, cf. Sch. *Opusc.* III 335.

**partim**: for this old Acc. cf. Lucr. VI 88 *unde volans ignis pervenerit aut in utram se verterit hinc partim*, ib. 384, where Munro quotes Liv. XXVI 46 § 8 *partim copiarum ad tumulum mittit, partim ipse ad arcem ducit.* L. and S. wrongly cite *Orat.* II 94, where *partim* is the adverb.

**id autem caput**: Aratus continues (l. 63) *τῆς δ' ἀγχοῦ μογέοντι κυλίνδεται ἀνδρὶ ἐοικὸς Εἴδωλον, τὸ μὲν οὔτις ἐπίσταται ἀμφαδὸν εἰπεῖν, οὐδὲ τίνι κρέμαται κεῖνος πόνῳ, ἀλλά μιν αὔτως Ἐνγόνασιν καλέουσι· τὸ δ' αὖτ' ἐν γούνασι κάμνον ὀκλάζοντι ἔοικεν...μέσσῳ δ' ἐφύπερθε καρήνῳ δεξιτεροῦ ποδὸς ἄκρον ἔχει σκολιοῖο Δράκοντος.* This figure was known by various names, *Engonasin*, found here and in Manil. V 646; *Nixus in genibus* or *genu*, as in Ov. *Met.* VIII 182 (of Ariadne's crown) *gemmae subitos vertuntur in ignes consistuntque loco, specie remanente coronae, qui medius Nixique genu est Anguemque tenentis; Nixus* simply, as in *Phaenom.* 45, 400, 456, 460; *Ingeniculatus* in Vitr. IX 6. Usually it was explained of Hercules contending with the Dragon of the Hesperides, but many other stories are told by Hyginus *P. A.* II 6; one of which is attributed by him to Aeschylus in the *Prometheus Solutus*, to the effect that Hercules being attacked by the Ligurians and having shot away all his arrows, *se ingeniculasse multis jam vulneribus acceptis*, but Jupiter provided him with stones, by means of which he routed the enemy.

**maerentis**: Grotius notices this as a mistranslation of *μογέων*.

**quia nixa feratur**: 'because (as they say) it is carried along in a kneeling attitude'. For Subj. cf. Roby § 1744.

**hic illa—Corona**: Aratus continues (l. 71) *αὐτοῦ καὶ κεῖνος Στέφανος, τὸν ἀγαυὸν ἔθηκε σῆμ' ἔμεναι Διόνυσος ἀποιχομένης Ἀριάδνης, νώτῳ ὑποστρέφεται κεκμηκότος Εἰδώλοιο. νώτῳ μὲν Στέφανος πελάει· κεφαλῇ γε μὲν ἄκρῃ σκέπτεο πὰρ κεφαλὴν Ὀφιούχου· ἐκ δ' ἄρ' ἐκείνης αὐτὸν ἐπιφράσσαις φαεινόμενον Ὀφιοῦχον.* The Serpent-holder was generally identified with Aesculapius, whose symbol was a serpent. After being slain with the thunderbolt for raising the dead, he was placed among the stars at the request of Apollo, Ov. *Fast.* VI 735, Hyg. *P. A.* II 14. *Eximio fulgore* Abl. qualifying *corona.*

§ 109. **claro lumine**: I have ventured to read *lumine* for the *nomine* of MSS, as the original has *φαεινόμενον*, and there is nothing famous in the name Ophiuchus. Below, *claro nomine* is rightly used of Arcturus; and so we read of the Pleiades (*Phaenom.* 37) *hae tenues parvo labentes lumine lucent: at magnum nomen signi clarumque vocatur, propterea quod et aestatis primordia clarat et post hiberni praepandens temporis ortus admonet, ut mandent mortales semina terris.* On the contrary, of other stars we read (*Phaen.* 182) *obscurae sine nomine cedunt*, and German. 145 *vatibus ignoti priscis sine honore feruntur*, ib. 338 *sine honore Corona* i. e. unknown to song. Probably the corruption arose from a misunderstanding of the abbreviated constr. *claro lumine perhibent*, which may be compared with

*Fin.* III 63 *qui in concha patula pinna dicitur=qui habitat et dicitur*, see n. on *nominaverunt* above § 51.

**hic pressu**: after three lines Aratus goes on (l. 82), ἀμφότεραι (i.e. χεῖρες) δ' Ὄφιος πεπονήαται ('are busied with') ὅς ῥά τε μέσσον δινεύει Ὀφιοῦχον· ὁ δ' ἐμμενὲς εὖ ἐπαρηρὼς ποσσὶν ὕπο θλίβει μέγα θηρίον ἀμφοτέροισι, Σκορπίον, ὀφθαλμῷ τε καὶ ἐν θώρηκι βεβηκώς, ὀρθός.

**ejus**: monosyllabic, as *cujus* in Lucr. I 149, see Wagner on synizesis (in Plaut. *Aul.* p. LVII).

**Nepai**: Fest. p. 164 M. *nepa Afrorum lingua sidus, quod cancer appellatur, vel, ut quidam volunt, scorpios.* In its literal acceptation we find it used of a scorpion by Cic. *Fin.* V 42, of a crab by Plautus *Cas.* II 8 7. Here and in § 114 it is used of the constellation Scorpion, for which we find *Scorpios* in § 113; in Ennius ap. Cic. *R. P.* I 30 it might have either meaning, *astrologorum signa in caelo quaesit, observat, Jovis cum capra aut nepa aut exoritur lumen aliquod beluae.* This ambiguity gave rise to the absurd belief mentioned by Plin. *N. H.* IX 51 that, when the Sun passes through Cancer, dead crabs lying on the beach are transformed into scorpions. The story of the Scorpion and Orion is told by Cic. *Phaen.* 426 foll. Diana to avenge herself on Orion called up the scorpion from the bowels of the earth, *hic valido cupide venantem perculit ictu, mortiferum in venas figens per vulnera virus; ille gravi moriens constravit corpore terram.*

**Septentriones sequitur**: C. here omits five lines, in which the constellation *Chelae* 'the claws' is referred to. Aratus then goes on (l. 91) ἐξόπιθεν δ' Ἑλίκης φέρεται ἐλάοντι ἐοικὼς Ἀρκτοφύλαξ, τόν ῥ' ἄνδρες ἐπικλείουσι Βοώτην, οὕνεχ' ἁμαξαίης ἐπαφώμενος εἴδεται Ἄρκτου, καὶ μάλα πᾶς ἀρίδηλος· ὑπὸ ζώνῃ δέ οἱ αὐτὸς ἐξ ἄλλων Ἀρκτοῦρος ἑλίσσεται ἀμφαδὸν ἀστήρ.

**Arctophylax**: see Hyg. II 4 and *Dict. of Ant.* s. v. *Astronomia.* The name is merely another form of *Arcturus*, which is used for the whole constellation by Hesiod (*Op.* 566, 610) and others. **Bootes** occurs in Homer *Od.* V 272 Πληιάδας τ' ἐσορῶντα καὶ ὀψὲ δύοντα Βοώτην. It is used by Babrius in the sense of 'ploughman', and we find the verb βοωτέω in Hes. *Op.* 391.

**temoni**: so Madv. for *temone*, 'as though yoked to the pole, i.e. wain'; apparently C. takes ἁμαξαίης as an adj. agreeing with Ἄρκτου. The Bear would thus consist of the three leading stars.

**quatit Arctum**: the lexx. quote *quatit equum* in the same sense from V. *Geo.* III 132, Sil. XII 254.

§ 110. **huic Booti**: I have transposed the words *dein quae sequuntur*, which precede these in the MSS, and placed them after *Virgo*, four lines below. Heind. was the first to observe that they were not justified by the omission of one or two words of the original. This change makes it necessary either to read *autem* instead of *enim* or to omit the particle altogether.

**nomine claro**: this is quite appropriate here. Arcturus is a famous and ancient name; as he says of himself in the *Rudens* (prol.) *signum sum omnium acerrimum, vehemens sum exoriens; cum occido, vehementior.*

**cui subjecta**: *cujus* in MSS probably arose from dittographia of the following *sub*. Dav. and others retain it, inserting *pedibus* and so giving a closer rendering of the Gr. (l. 96) ἀμφοτέροισι δὲ ποσσὶν ὕπο σκέψαιο Βοώτεω Παρθένον, ἥ ῥ' ἐν χειρὶ φέρει σταχὺν αἰγλήεντα. Heind. objects to Dav.'s reading on the ground that it is unsuited to the immediate antecedent *Arcturus.*

**spicum**: this word is found in all three genders. The neuter is attested in this place by Servius on *Geo.* I 111, cf. Varro ap. Non. p. 225 *neque in bona segete nullum est spicum nequam, neque in mala non aliquod bonum.* Voss conjectures the meaning of the ear of corn to be that the harvest commenced under that sign.

**Virgo**: Aratus describes her at length in words borrowed from Hesiod's description of Justice (*Op.* 192, 257 ἡ δέ τε παρθένος ἐστὶ Δίκη Διὸς ἐκγεγαυῖα foll.), cf. V. *Geo.* II 474 *extrema per illos Justitia excedens terris vestigia liquit.* Ovid (*Met.* I 150) and Seneca (*Octav.* 423 *neglecta terras fugit et mores feros, hominum cruenta caede pollutas manus, Astraea virgo siderum magnum decus*) call her Astraea, others supposed her to be Erigone or Ceres. Virgil (*Ecl.* IV 6) makes her return in the new age of gold.

Ch. XLIII. **dein quae sequuntur**: transferred from above, see n. on *huic Booti:* the phrase seems to imply impatience, a disposition to hurry on, and would be very suitable here, as 47 lines of the Greek are omitted, in which Aratus tells the story of Astraea.

**et natos Geminos invises**: Aratus 147 κρατὶ δὲ οἱ Δίδυμοι, μέσσῃ δ' ὕπο Καρκίνος ἐστί· ποσσὶ δ' ὑπ' ἀμφοτέροισι Λέων ὑπὸ καλὰ φαείνει. The Twins were usually identified with Castor and Pollux, sometimes with Amphion and Zethus, or, by Nigidius, with the Samothracian gods.

**Cancer**: said to have been placed in heaven by Juno for aiding the Hydra in its conflict with Hercules (cf. the story of Orion). Some thought it was selected to mark the summer solstice because after that the Sun moves backwards (Macrob. I 17 § 63).

**Leo**: the Sun enters this sign in the middle of July, hence it is called by Hor. *Od.* IV 29 19 *stella vesani Leonis.* It was identified with the Nemean lion, which was said to be of lunar origin and to have been sent down to earth by Juno. Probably it is a mere symbol of the violent heat of the Sun at that time.

**quatiens**: referring to the twinkling of the star, as in *Phaenom.* 51 *mediocre jacit quatiens e corpore lumen,* and below § 111 *Equus quatiens jubam.*

**auriga**: Aratus goes on after some ten lines (l. 160) αὐτὸν (Ἡνίοχον) μέν μιν ἅπαντα μέγαν Διδύμων ἐπὶ λαιᾷ κεκλιμένον δήεις· Ἑλίκης δέ οἱ ἄκρα κάρηνα ἀντία δινεύει· σκαιῷ δ' ἐπελήλαται ὤμῳ αἲξ ἱερή. The charioteer was identified with Erichthonius (cf. Virg. *G.* III 113 *primus Erichthonius currus*

*et quattuor ausus jungere equos*), or with Myrtilus the charioteer of Oenomaus.

**obductus**: can we take this, with Sch., as equivalent to *obversus* or *objectus?* The more natural sense would be 'covered', 'veiled' (cf. below § 120 *trunci obducuntur libro*), but this would be no translation of κεκλιμένον 'slanting', for which German. and Vitr. (IX 4 § 2) have the more correct *transversus.*

**feretur**: the Fut. answers to the Gr. δήεις 'if you look, you will find him'.

**adversum tuetur**: 'the head of Helice with fierce aspect confronts him', cf. V. *Aen.* VI 467 *torva tuentem.*

**Capra**: the star called *Capra* or *Capella* was supposed to be Amalthea, the she-goat which nursed Jupiter on Ida. It is more frequently mentioned than the constellation *Auriga*, of which it forms a part, cf. Hor. *Od.* III 7 6 *insana Caprae sidera*, Ov. *Fast.* V 213 *nascitur Oleniae signum pluviale Capellae.*

[**tum quae sequuntur**]: I cannot help thinking these words are misplaced, or accidentally repeated from above, as they break the connexion between *haec* and *Capra;* and in the original only two lines are omitted, τὴν μέν τε λόγος Διὶ μαζὸν ὑποσχεῖν, Ὠλενίην δέ μιν Αἶγα Διὸς καλέουσ' ὑποφῆται, after which Aratus continues (l. 164) ἀλλ' ἡ μὲν πολλή τε καὶ ἀγλαή, οἱ δὲ οἱ αὐτοῦ λεπτὰ φαείνονται Ἔριφοι καρπὸν κατὰ χειρός. There is a gap in § 114 before *inde nepae*, where they would be useful.

**Haedi**: described by the poets as rainy, like their mother, because they rise about the time of the autumnal equinox, Hor. *Od.* III 1 27 *nec saevus Arcturi cadentis impetus aut orientis Haedi*, V. *Geo.* I 205, *Aen.* IX 668 *pluvialibus Haedis.*

**cujus sub pedibus**: Aratus continues (l. 167) πὰρ ποσὶ δ' Ἡνιόχου κεραὸν πεπτηότα Ταῦρον μαίεσθαι 'search for the crouching Bull near the feet of Auriga', which the Schol. explains πεπτηότα, διὰ τὸ κατάστημα, ὥσπερ γὰρ ὀκλάσας ἐστίν, cf. l. 517 (a sign of the equinox is) Ταύρου σκελέων ὅσση περιφαίνεται ὀκλάξ (=ὄκλασις, not in lexx.), which C. translates *Phaenom.* 290 *atque genu flexo Taurus conititur ingens.* When we compare this with the present line, the question arises whether *conitor* may not express a kneeling posture, as we saw that *nixus* did, both being connected with *genu;* otherwise we must suppose that C. here wrongly took Ταῦρον as Subj. of the Inf. 'the Bull struggles' (*conixus*), and misunderstood πεπτηότα, which here and in l. 354 (of Andromeda in presence of the sea-monster) we ought probably to connect with πτήσσω: in l. 323 (of Orion) ὑψοῦ πεπτηῶτα, and 317 (four stars) παρβολάδην δύο πὰρ δύο πεπτηῶτα, some other explanation is required, and I should connect it either with πετάννυμι or πέτομαι. Grotius gives three senses, (1) 'expanded', (2) 'bowed down', and (3) 'threatening' (?). Germanicus here has *trux*, Avienus *late tenduntur pectora Tauri;* in speaking of Andromeda C. translates ἀπόπροθι πεπτηυῖαν by *in tutoque locatam* (*Phaenom.* 139), German. has *expositam;* of Orion C. has *late dispersum* (*Phaen.* 105).

§ 111. **caput stellis**: Aratus goes on (l. 173) Ὑάδες ταὶ μέν ῥ' ἐπὶ παντὶ μετώπῳ Ταύρου βεβλέαται.

**Hyadas**: mentioned by Homer and Hesiod, and therefore called by Aratus (l. 172) καὶ λίην κείνων ὄνομ' εἴρεται οὐδέ τοι αὔτως νήκουστοι. Ovid says of them (*Fasti* v 165) *ora micant Tauri septem radiantia flammis, navita quas Hyadas Graecus ab imbre vocat. Pars Bacchum nutrisse putat, pars credidit esse Tethyos has neptes Oceanique senis;* foll. Horace calls them *tristes* (*Od.* I 3 14) because their morning setting was in November, and their rising in April was also attended with rain Plin. *N. H.* XVIII 66.

**Suculas**: the same is said by Plin. l. c. and Tiro ap. Gell. XIII 9 *adeo veteres Romani litteras Graecas nesciverunt, ut stellas quae in capite Tauri sunt propterea suculas appellarint, quod eas Graeci ὑάδας vocant,...sed ὑάδες οὐκ ἀπὸ τῶν ὑῶν, ita ut nostri opici putaverunt, sed ab eo quod est ὕειν appellantur.* Gellius defends his countrymen on the ground that *sucula* was the natural Latin for ὑάς as *super* for ὑπέρ. The present opinion is rather that both the Greek and Latin are from the root *sus* and mean little pigs, as the other names of constellations refer to material objects, chiefly animals (Vaniçek *Etym.* and Nitzsch *Odyss.* v 272). Also the quantity of the vowel is against the derivation of ὑάς (ῠ, like the oblique cases of ὗς) from ὕω (ῡ). The form *sucula* may be compared with *bucula, canicula.*

**Cepheus**: Aratus continues (l. 182) αὐτὸς μὲν κατόπισθεν ἐὼν Κυνοσουρίδος Ἄρκτου Κηφεὺς ἀμφοτέρας χεῖρας τανύοντι ἐοικώς. Cf. *Tusc.* v 8 *nec stellatus Cepheus cum uxore* (Cassiopeia) *genere* (Perseus) *filia* (Andromeda) *traderetur, nisi caelestium divina cognitio nomen eorum ad errorem fabulae traxisset* (i. e. if they had not been famed as astronomers). For the story see Ov. *Met.* IV 663 foll. and Milton *Penseroso* 'that starred Ethiop Queen, that strove to set her beauty's prize above the sea-nymphs and their powers offended'.

**ipse**: as contrasted with his wife and daughter.

**Cynosurae**: a name in apposition limiting the more general *Arcti*, unless we may regard it as an Adj. like the *cynosura ova* of Plin. *H. N.* x 167.

**hunc antecedit**: Aratus continues (l. 187) τοῦ δ' ἄρα δαιμονίη προκυλίνδεται οὐ μάλα πολλὴ νυκτὶ φαεινομένη παμμήνιδι Κασσιέπεια.

**hanc autem illustri**: Aratus (l. 197) αὐτοῦ γὰρ κἀκεῖνο κυλίνδεται αἰνὸν ἄγαλμα Ἀνδρομέδης ὑπὸ μητρὶ κεκασμένον, i. e. 'arrayed beneath her mother'. One of the scholiasts however gives οἱονεὶ κεχωρισμένον as an explanation of κεκασμένον, probably reading κεχασμένον from χάζομαι, which perhaps may be the origin of C.'s *aufugiens aspectum.* For the constr. of *auf.* with Acc. cf. Prop. I 9 30 *assiduas aufuge blanditias*, Hyg. *Fab.* 258 *quae sol aufugit*, where Muncker gives other instances. Lachmann (in his Lucr. p. 272) argues against the reading here, on the ground that the final *a* of Greek nouns is long and cannot be elided (ib. p. 405); but Mu. instances *Andromeda hic* (*Phaenom.* 257), *Andromeda et* (ib. 436), and the short *a* in *hydra* (ib. 292, 397).

**maesta**: this hardly gives the *αἰνὸν ἄγαλμα* of the original. It may have been suggested by the words used just before of Cassiopeia *ἀνιάζειν ἐπὶ παιδί*.

**huic Equus ille**: Aratus 205 *ἀλλ' ἄρα οἱ καὶ κρατὶ πέλωρ ἐπελήλαται Ἵππος γαστέρι νειαίρῃ, ξυνὸς δ' ἐπιλάμπεται ἀστήρ, τοῦ μὲν ἐπ' ὀμφαλίῳ, τῆς δ' ἐσχατόωντι καρήνῳ.* The horse is Pegasus who with his hoof made Hippocrene. For **duplices** Sch. cites V. *Aen.* I 93 *duplices ad sidera palmas*, and Cic. *Prov. Cons.* 13 *has duplices pestes sociorum* (of the consuls Piso and Gabinius), but both instances refer to pairs. Is there any case in which it means simply 'two'? Perhaps here we should translate 'twinned'. The line *aeternum ex astris—nodum* is an embellishment added by C. We find *nodus* used of a common star in *Phaenom.* 17 (translating *σύνδεσμος*), and *aeternus* similarly used (l. 34 *aeterno nomine*) without anything corresponding to it in the original: the word was also a favourite with Lucretius, cf. his *aeterno devictus volnere amoris*, and Munro on v 402, 476, 514.

**contortis cum cornibus**: 'with crinkled horns'. Aratus 225 *αὐτοῦ καὶ κριοῖο θοώταταί εἰσι κέλευθοι.* This was supposed to be the ram which carried Phrixus and Helle. **haeret**=*ἐστήρικται* Arat. 229, regularly used of fixed stars, as in *Phaenom.* 169 *procul illis Piscibus haerens*, where the Gr. has simply *οἶος ἀπὸ προτέρων*. For **cum** see n. on *cum gurgite* § 112.

**Pisces**: after describing Deltoton (the Triangle), Arat. goes on (l. 239) *ἔτι δ' ἐν προβολῇσι Νότοιο Ἰχθύες, ἀλλ' αἰεὶ ἕτερος προφερέστερος ἄλλου, καὶ μᾶλλον Βορέαο νέον κατιόντος ἀκούει.* Probably the month in which the sun passed through this sign was originally connected with fishing. Afterwards a mythological explanation was found in the Syrian deity Derceto or Atargatis, *alias* Isis or Venus (Ov. *Fast.* II 458), whom the two fishes are said to have saved from Typhon.

**aquilonis tangitur auris**: this method of describing the quarters of the heaven is imitated by Lucr. v 689, where see Munro.

Ch. XLIV § 112. **ad pedes Andromedae**: Aratus 248 *ἀμφότεροι δὲ πόδες γαμβροῦ ἐπισημαίνοιεν Περσέος, οἵ ῥά οἱ αἰὲν ἐπωμάλιοι φορέονται. Αὐτὰρ ὁ γ' ἐν Βορέῳ φέρεται περιμήκετος ἄλλων* ('the feet of Andromeda may point you towards her spouse, for they pursue their path above his shoulder').

**cujus propter laevum genu**: Arat. 254 *ἄγχι δέ οἱ σκαιῆς ἐπιγουνίδος ἤλιθα πᾶσαι Πληιάδες φορέονται, ὁ δ' οὐ μάλα πολλὸς ἁπάσας χῶρος ἔχει, καὶ δ' αὐταὶ ἐπισκέψασθαι ἀφαυραί.* Hipparchus notices that Aratus is wrong in placing the Pleiads near the knee of Taurus; they are really at his back, near the bright stars in the left foot of Perseus. For the readings see crit. n. In the *Phaenom.* l. 27 Baehrens reads *at propter laevum genus omnis parte locatas parva Vergilias tenui cum luce videbis*, where MSS have *parvas*. The four words following *genus* are omitted here in three of Orelli's MSS; and B, which adds them, has *at* instead of *cujus* and *genus* for *genu*, which certainly suggests that they were inserted from the *Phaenom.* Sch. however and Mu. give the complete lines, making *cujus* a monosyllable, like *ejus* in § 109; and the former (*Opusc.* III 336) illustrates

the alteration of *at* into *cujus*, by the change of *quam gelidum* into *tum gelidum* just below, *quem propter* for *quam propter*, to suit the altered construction; and in § 112 *paulo* into *paulum*, *horrisonis* into *horriferis* apparently by slip of memory. The archaic *genus* for *genu*, which they read here, is found in *Phaenom.* 45, 46, 399, 403. The inserted words *omni ex parte locatas parvas* do not agree with the original and indeed are hardly intelligible.

**Vergilias**: Max Müller (*Lect.* II p. 7) derives the name 'from *virga* a sprout or twig: the name was given by Italian husbandmen, because in Italy, when they became visible about May, they marked the return of summer'. Others connect it with *ver* or *vergo*. The word Πλειάδες is usually connected with πλεῖν, as they marked the safe time for sailing, but Nitzsch (*Od.* V 272), with whom Vaniçek agrees, thinks the form πελειάδες (Pind. *Nem.* II 8) the older, and supposes that they were regarded as a flock of wild doves flying before the hunter Orion, as Hes. *Op.* 619 Πληιάδες σθένος ὄμβριμον Ὠρίωνος φεύγουσαι. In later times they were believed to be the daughters of Atlas pursued by the love of Orion and saved by being turned into doves. They are among the five constellations mentioned by Homer and Hesiod. It is said in the *Dict. of Ant.* s. v. that in Arabic and Old English they were spoken of as the Hen and Chickens.

**tenui cum luce**: see above § 106 *cum gurgite;* Mr Swainson compares Lucr. IV 1126 *viridi cum luce zmaragdi.*

**inde Fides**: Arat. l. 268 καὶ Χέλυς ἥδ' ὀλίγη. Cic. seems to have filled up his line with otiose epithets for an ordinary lyre, like his *contortis cornibus* of Aries in § 111, if Mu. and Baehrens are right in reading **posita et leviter convexa videtur** 'next to this in position and slightly bowed outwards appears the Lyre'. Ba. has *leviter posita:* could this mean 'slightly sketched' (ἀμυδρά in Theon's *Schol.*) like Hor. *Od.* IV 8 8 *sollers hominem ponere?* The fact that there is one splendid star in *Lyra* is not inconsistent with such a description on the part of C. Sch. (*Opusc.* III 336) suggested *positu leviter conversa = paululum inclinata et obliquata.* It is true Manilius (VI 325) speaks of the Lyre as *conversa* 'up side down', as Cic. has *puppis conversa Phaen.* 127; but what ground had C. for such a statement? his authority gives no hint of a slanting position. If it be said that this would be apparent in any map or sphere which C. might have before him, as it is in the Harleian MS; yet there would be no force in the adverb *leviter;* the position is represented as precisely reversed. The Lyre was identified with that first made by Mercury.

**inde est ales Avis**: for *inde* we have *namque* in *Phaenom.* 47 to explain *alitis* in the previous line: in the original (l. 275) ἤτοι γὰρ καὶ Ζηνὶ παρατρέχει αἰόλος Ὄρνις, the Schol. take Ζηνί as equivalent to τῷ οὐρανῷ (C.'s *sub tegmine caeli*). I suppose *ales* is to be taken as an epithet here, though Ba. writes it with a capital. L. and S. seem to think that C. intended it to represent αἰόλος, but it occurs also *Phaen.* 258, without any Greek equivalent. This constellation was identified by later writers with

the Swan of Leda and is therefore called *Cycnus* by Germanicus, *Olor* by Manilius.

**capiti autem Equi**: Arat. l. 283 Ἵππου. πὰρ δ' ἄρα οἱ κεφαλῇ χεὶρ Ὑδροχόοιο δεξιτερὴ τάνυται, ὁ δ' ὀπίστερος Αἰγοκορῆος τέλλεται. Nothing is said in the original of the body of *Aquarius*. Probably the name was given to the Sign, because it was thought that the Sun's passage through it was accompanied by rain, so Hor. *Sat.* I 1 36 *contristat Aquarius annum.* Later mythologers identified him with Ganymede, as the celestial cup-bearer, or with Deucalion as the witness of the Deluge.

**tum gelidum**: for *tum* we read *quam* in *Phaen.* 58 after *serius*. The four lines which follow are an expansion of Arat. l. 286 κέκλιται Αἰγόκερως ἵνα τε τρέπετ' Ἠελίου ἴς, not (as Dav.) a translation of 292 τότε δὴ κρύος ἐκ Διός ἐστι, which is given in *Phaen.* 67.

**semifero**: used properly of one who is half man, half brute, as of Pan (Lucr. IV 587). Voss in his note on Aratus l. c. cites Eratosth. (*Catast.* 27) to show that Pan was originally intended by Αἰγόκερως, and that he was anciently represented, like his son Aegipan, as a mixture of man and goat. He was raised to heaven in gratitude for his aid in the war between Typhon and the Gods; but when his form became humanized, the fable placed his son in heaven in his stead. The story is given in full from Nigidius by the scholiast on Germanicus. In later times, e.g. on the coins of Augustus, Capricornus is depicted with a fish's tail. Macrobius (*Sat.* I 17) says the climbing goat was chosen as the sign of the winter solstice, because the Sun begins to climb the heaven from that time, as the Crab with its backward movement represents the retrogression which follows the summer solstice.

**magno in orbe**: the zodiac, cf. *Phaenom.* 237 foll.

**Titan**: the sun is so called as being either identified with Hyperion or the son of Hyperion; the first example seems to be in Empedocles fr. l. 185, but it is more common in Latin than in Greek poetry, cf. Preller *Gr. M.* p. 41 n. 4.

§ 113. **ut sese ostendens**: Arat. 302 σῆμα δέ τοι κείνης ὥρης...Σκορπίος ἀντέλλων εἴη πυμάτης ἐπὶ νυκτός· ἤτοι γὰρ μέγα τόξον ἀνέλκεται ἐγγύθι κέντρου Τοξευτής, ὀλίγον δὲ παροίτερος ἵσταται αὐτοῦ Σκορπίος ἀντέλλων· ὁ δ' ἀνέρχεται αὐτίκα μᾶλλον, which are thus turned *Phaen.* 74 *hoc signum veniens poterunt praenoscere nautae: jam prope praecipitante licebit visere nocte, ut sese ostendens emergit* (*ostendens ostendat* MSS) &c. where *ut* is probably to be translated 'when'; 'you have a sign of bad weather when the Scorpion rises'. Taking the quotation, as it stands, we should naturally make *ut* follow *aspicitur* in the sense of 'how', the direct construction being frequently used instead of the indirect in such circumstances by the older poets, as in Enn. *Ann.* l. 215 V. *audite ut mitto; Trag.* 23 *eloquere, res Argivum ut se sustinet;* Ter. *Hec.* III 5 21 *si memorare velim quam fideli animo...fui, vere possum;* Virg. *Ecl.* IV 52 *aspice venturo laetantur ut omnia saeclo.* It is possible also to take *Scorpios* as subject to

*aspicitur* 'the Scorpion is seen as he rises'. But it may be a question whether the quotation was not at first shorter, and whether the words *ut sese ostendens emergit* may not have been added, as in a former quotation, from the *Phaenomena;* see crit. n. The omission of *ut* in MSS is probably accidental owing to the *-ur* preceding, unless *aspicitur* is a corruption for *aspicito ut*, the Imperative being, more naturally than the Ind., followed by *ut* with Ind.

**ostendens emergit**: some edd. have *emergens ostendit*, but it is not uncommon for the more important word to be thus subordinated to the less important, as in § 115 *natura omnia conficiens funditur*, where we might have expected *fusa conficit.*

**alte**: Baehrens and Orelli read *alto* with Grotius, 'rising out of the deep'. *Alte* is common in the older poets, as of the sun in Lucr. IV 404 *jubar erigere alte*, V 610 *rosea alte lampade lucens.*

**posteriore trahens—Arcum**: 'drawing after it a bent bow with its powerful tail'. Cic. here mistakes the force of l. 305 ἀνέλκεται ἐγγύθι κέντρου, 'the Archer is drawing the bow near the Scorpion's sting' (=*tendit*), and confounds it with the ἕλκεται of l. 342 ἡ δὲ Κυνὸς μεγάλοιο κατ' οὐρὴν ἕλκεται 'Αργώ (=*trahitur*). *Arcus* is used for the whole constellation by German. l. 311, 668. The Archer, whom Cic. calls *Sagittipotens* (*Phaen.* 73) *Sagittarius* (l. 279) *Arcitenens* (l. 405), was supposed to be a centaur. I read **flexum** here with Sch., as it is found in all the MSS of the *Phaenom.* and there seems no reason why C. should have changed it for the hyperbolical *plexum*, which means 'tied in a knot'.

**quem propter—Ales**: five lines are here omitted containing the antecedent to *quem*. As it stands, it can only be *arcum*, which gives a wrong position for the *Ales* (on which see § 112). The corresponding line 85 in the *Phaen.* begins with *quam* referring to the antecedent *Sagitta* in l. 84, cf. Aratus 311 ἔστι δέ τοι προτέρω βεβλημένος ἄλλος 'Οϊστός, αὐτὸς ἄτερ τόξου· ὁ δέ οἱ παραπέπταται Ὄρνις ἀσσότερον Βορέῳ· σχεδόθεν δέ οἱ ἄλλος ἄηται οὐ τόσσος μεγέθει...καί μιν καλεοῦσ' 'Αητόν. The solitary arrow was said to be either that with which Apollo slew the Cyclopes or that with which Hercules killed the eagle of Prometheus. **convolvitur**: referring to the rotatory movement of the heaven.

**Aquila se portat**: cf. *Phaen.* 24 *victor pedes portat.* The eagle is called *Jovis Ales nuntius* (*Phaen.* 294); it is alluded to by Eur. *Rhesus* 530. For **cum corpore** cf. above § 106 *cum gurgite.*

**deinde Delphinus**: Aratus continues (l. 316) Δελφὶς δ' οὐ μάλα πολλὸς ἐπιτρέχει Αἰγοκερῆϊ. According to Geminus it was raised to heaven by Neptune for revealing the hiding-place of Amphitrite; others identified it with the dolphin of Arion.

**exinde Orion**: Aratus 322 λοξὸς μὲν Ταύροιο τομῇ ('under the section of Taurus') ὑποκέκλιται αὐτὸς 'Ωρίων. In Homer he appears as a mighty hunter, σθένος 'Ωρίωνος, eyed by the bear he is pursuing (*Il.* XVIII 486), and following the chase even in the lower world (*Od.* XI 572) 'Ωρίωνα πελώριον

εἰσενόησα θῆρας ὁμοῦ εἰλεῦντα, cf. too *Od.* XI 310, v 21. In oriental astronomy he is the giant Nimrod, see Smith's *Dict. of the Bible* under 'Orion'. The story of his death for insulting Diana is variously told; according to one account it was through the sting of a scorpion (see above § 109 on *Nepa*), according to another followed by Horace, *notus et integrae temptator Orion Dianae virginea domitus sagitta* (*Od.* III 4 70).

§ 114. **quem subsequens**: Aratus 326 τοῖός οἱ καὶ φρουρὸς ἀειρομένῳ ὑπὸ νώτῳ φαίνεται ἀμφοτέροισι Κύων ἐπὶ ποσσὶ βεβηκώς. **refulget** is altered from *refulgens* of *Phaen.* to suit the context. *Sirius* rose at the time of the entry of the sun into *Leo*, which marked the hottest season of the year; hence Horace speaks of *rabiem Canis et momenta Leonis, cum semel accepit solem furibundus acutum; Ep.* I 10 16. Homer (*Il.* XXII 29) likens Achilles to the baleful star ὅντε κύν' Ὠρίωνος ἐπίκλησιν καλέουσιν. λαμπρότατος μὲν ὅδ' ἐστί, κακὸν δέ τε σῆμα τέτυκται.

**post Lepus subsequitur**: Aratus 338 ποσσὶ δ' ἄρ' Ὠρίωνος ὑπ' ἀμφοτέροισι Λαγωὸς ἐμμενὲς ἤματα πάντα διώκεται· αὐτὰρ ὅ γ' αἰεὶ Σείριος ἐξόπιθεν φέρεται μετιόντι ἐοικώς. The mythologists were hard put to it to find any story for this constellation, which, like the hound, the doves and others, was simply seen in the sky by the primitive hunters. A moral is attached to it, as to the Hydra, by Hyginus II 33.

**curriculum sedans**: this is said of Sirius in *Phaen.* 125, but it is more like the original to make it refer, as here, to the Hare.

**at Canis—Argo**: the original is cited above on **posteriore trahens.** On the Argo see § 89. **serpens** may express the gliding movement either of a ship or of the heavenly bodies, as in *Phaen.* 45 (*Ales*) *volat et serpens geminis secat aera pinnis*, and Lucr. V 690 *annua sol in quo concludit tempora serpens.*

**hanc Aries tegit**: here, as above (*quem propter*), the noun to which the pronoun refers has been omitted, either from a hiatus in the MSS or from carelessness on the part of C., see Arat. 356 Κῆτος ὑπὸ Κριῷ τε καὶ Ἰχθύσιν ἀμφοτέροισι βαιὸν ὑπὲρ Ποταμοῦ βεβλημένον ἀστερόεντος: thus turned by C. *Phaen.* 140 *Andromedam explorans fera quaerere Pistrix pergit...hanc Aries* &c. As the verse stands here, we are obliged to refer *hanc* to *Argo*, which really lies 70° to the west of *Cetus* or *Pistrix*. This was supposed to be the sea monster sent to devour Andromeda. For *Aries* and *Pisces* see above § 111. **tegit**, for which Sch. conjectures *tagit*, simply means lies above it, i.e. to the north of it.

**fluminis—ripas**: the River is, according to Aratus, the mysterious *Eridanus*, identified by many with *Padus;* others supposed it to be the Nile. **illustri**: Orelli conjectured *illustris* as nearer the original ἀστερόεντος, but the epithet suits one noun as well as the other, and the Ablative makes a better verse. Sch. reads *tangentes* without reason; Cetus does touch the River with his breast,—I adopt Heinsius' emendation, *pectore* for *corpore*—while Pisces are some distance from it.

**quem**: the Masc. is I think used, not (as Sch.) because C. had *fluvius* in his mind (on which see Varro *R. R.* I 12), but because in the *Phaen.* he had used for it the name Eridanus, of which he says (l. 149) *hunc Orionis sub laeva cernere planta serpentem poteris, proceraque Vincla videbis.*

**Vincla**: Arat. 362 Δεσμοὶ δ' οὐράνιοι τοῖς Ἰχθύες ἄκροι ἔχονται, ἄμφω συμφορέονται ἀπ' οὐραίων κατιόντες ('hanging from their tails').

**inde Nepae cernes**: forty lines are omitted in which the Southern Fish and the Water Stream are treated of; then Aratus goes on l. 402 αὐτὰρ ὑπ' αἰθομένῳ κέντρῳ τέραος μεγάλοιο Σκορπίου ἄγχι νότοιο Θυτήριον αἰωρεῖται. The Altar was an invention of Eudoxus, which the mythologists made out to be that on which the Gods swore alliance against the Titans.

**propterque Centaurus**: Arat. 437 τοῦ (Κενταύρου) γάρ τοι τὰ μὲν ἀνδρὶ ἐοικότα νείοθι κεῖται Σκορπίου· ἱππούραια δ' ὑπὸ σφίσι Χηλαὶ ἔχουσιν. αὐτὰρ ὁ δεξιτερὴν αἰεὶ τανύοντι ἔοικεν ἀντία δινωτοῖο Θυτηρίου· ἐν δέ οἱ ἀπρὶξ ἄλλο μάλ' ἐσφήκωται ἐληλαμένον διὰ χειρὸς θηρίον. **equi partis**=ἱππούραια. For **subjungere** the MSS of *Phaen.* have *conjungere.*

**Chelis**: the constellation formerly known as the Claws of the Scorpion was afterwards changed to *Libra.* In *Div.* II 98 it is called *Jugum, in jugo cum esset luna.* Virgil has both names, *Chelae* in *Geo.* I 33 and *Libra* l. 208 *Libra die somnique pares ubi fecerit horas, et medium luci atque umbris jam dividit orbem,* referring to the autumnal equinox, when the sun is in Libra. Manilius calls it *juga Chelarum* I 609. After the astronomical reform of Jul. Caesar the name Libra is the one in ordinary use, e.g. Hor. *Od.* II 17 16 *seu Libra, seu me Scorpios adspicit formidolosus;* Manil. IV 548 *felix aequato genitus sub pondere Librae; judex examen sistet vitaeque necisque.* Besides denoting the equilibrium of day and night, it was supposed to be the scale of the Virgin Justice.

**hic**: the centaur, supposed to be Chiron. **porgens**: the contracted form becomes regular in *surgo.*

**quadrupes**: now known as *Lupus,* but not specially named by the Greeks, as C. says in the line which follows in *Phaen.* 212 (omitted here) *quam nemo certo donavit nomine Graium.* Martianus Capella calls it *panthera.* Germanicus (419) leaves it doubtful *seu praedam e silvis portat seu dona propinquae, placatura deos, cultor Jovis, admovet arae.* Though *quadr.* commonly means a beast of burthen, we find it used of a tortoise Pacuv. *Ant.* fr. 4, of a crocodile Plin. *N. H.* VIII 37.

**truculentus caedit**: the weight of MS authority is about equal for *cedit* or *caedit,* but I think the probability is in favour of the latter, because (1) we should otherwise have *cedit—tendit—cedit* all meaning the same thing (for *tendit* can hardly be taken in the sense of 'stretch' with *porgens* just before), (2) the idea of sacrifice is naturally suggested by the altar, (3) the word *truculentus,* which does not occur in the original, seems to have been added by Cic. to suit *caedit* rather than *cedit.*

**hic sese infernis—Hydra**: Arat. 442 ἀλλ' ἔτι γάρ τε καὶ ἄλλο περαίοθεν ἕλκεται ἄστρον. Ὕδρην μιν καλέουσι, τὸ δὲ ζώοντι ἐοικὸς ἠνεκὲς εἱλεῖται. *In-*

*fernis:* the regions near the South; so *Phaen.* 217 *subiens inferna Leonis* and 272 *alter ab infernis Austri convertitur auris.*

**longe corpus est fusum** = ἕλκεται, because the Hydra πάνυ ἐπὶ μήκιστον ἐκτέταται, as Theon says in his *Schol.*, extending over three Signs. It was identified by the Greeks with the Lernaean Hydra. The Egyptians said it denoted the Nile, which overflowed its banks during the three corresponding months, the Cup being the national symbol, and the Raven the slime left behind after the inundation. The more common story told by Ovid (*F.* II 243 foll.) is that a raven sent by Apollo waited at the fountain for some figs to ripen, and then seizing a snake in its claws, laid upon it the blame of its own delay, *hic mihi causa morae, vivarum obsessor aquarum, hic tenuit fontes officiumque meum.* The all-seeing Deity punished the raven by condemning it to perpetual thirst during the time of the ripening of figs; and the moral lesson was enforced by being written in the sky, see Hyg. II 40.

**in medioque sinu**: Arat. 448 μέσσῃ δὲ σπείρῃ Κρητήρ, πυμάτῃ δ' ἐπίκειται εἴδωλον Κόρακος σπείρην κόπτοντι ἐοικός. καὶ μὴν καὶ Προκύων Διδύμοις ὑπὸ καλὰ φαείνει. Hyginus l.c. explains as follows, *videtur rostro caudam Hydrae verberare ut tamquam sinat se ad Crateram transire.* **extremam**: sc. *hydram.* The form *cratera* occurs elsewhere in Cic. as well as in Livy and Horace; Nonius reads *creterra* in this passage.

**Antecanis**: a second hound of Orion which rises before Sirius. Pliny says of it *N. H.* XVIII 68 (Procyon) *apud Romanos non habet nomen, nisi Caniculam hanc velimus intellegi, id est minorem canem* (the name by which Vitruvius knows it). The edd. have *antecanem* (as Baehrens) or *ante canem* in two words (with most of the MSS), which may be compared to the terms *pro consule, pro praetore;* but, as these gave rise to the forms *pro-consul, pro-praetor,* so *Antecanis* would be formed to represent the Gr. προκύων, and this is the form we find regularly used in the *Scholia* to Germanicus (see crit. nn.). Similarly we have *antepes* Cic. *Phaen.* 452, *antevindemiator* Germ. *Schol.* p. 208 Breys. The scribes would naturally divide the word and put the second half in the Acc.

Cicero mentions in all 48 stars or constellations, omitting the following from the list of Aratus, *Vindemiatrix* (προτρυγητήρ) after *Virgo; Deltoton* (*Phaen.* l. 4) after *Aries; Sagittarius* (*Phaen.* 72), unless we identify this with *Arcus,* after *Scorpios; Cetus* or *Pistrix* (*Phaen.* 140) after *Argo; Piscis Australis* and *Aqua* after *Vincla* (*Phaen.* 167). Of these *Pistrix* alone is of importance: as the omission misplaces the constellation which follows: perhaps we ought to supply *tum Pistrix* with Lescal. and Bouh. before *hanc Aries.* It is worthy of note that the scribes have not attempted to supply these omissions from the *Phaenomena;* which suggests a doubt as to the supposed interpolation in § 112.

§ 115. **discriptio**: see I 26 and Index. **ornatus**: see above § 94.

**temere cursantibus**: see above § 93: and for the argument the eloquent passage in Manilius I 483 foll.

**aut vero:** Heind. reads *an vero* with G; the former introduces a new subject, the latter an alternative question with regard to a former subject; cf. *Or.* I 36 *quis enim tibi hoc concesserit aut initio genus hominum in montibus...dissipatum, non prudentium consiliis compulsum...se oppidis moenibusque saepsisse? aut vero reliquas utilitates...non a sapientibus et fortibus viris ...esse constitutas?*

**aliqua natura:** I think this reading gives a better sense than *alia quae natura.* In the first place it would be odd to allude to the clashing of atoms as a sort of *natura* (and this, I think, must be the force of *alia*, for we can hardly take it, with Heind., as referring to the animated nature of the Stoics) and secondly we have already had an *inanima natura* specified as a conceivable cause of the universe (§§ 76—81) and contrasted with *fortuna* (§ 43) and *necessitas* (§ 81). I think too that *aut vero* implies a more decided opposition to the preceding clause, than would be expressed by *alia quae.* For *aliqua*, see § 88 *necessitate aliqua*, § 4 *aliquod numen*, § 18 *aliquam mentem* (see n.).

**quae ut fierent ratione eguerunt** = *quorum effectio eguit ratione.* For other examples of the substitution of the concrete for the abstract, the personal for the impersonal construction, see *Lael.* 56 *constituendi sunt qui sint fines* with Reid's n.; ib. 63 *quidam perspiciuntur quam sint leves; Fin.* V 58 *ut plane, qualia sint, intellegantur*, for *intellegatur;* where Madv. says *facillima est forma, qua sola Cicero utitur, ejus attractionis, quam tractavit Kruegerus* (*Unters.* III § 162). Compare the Greek constructions with φαίνομαι, δῆλός εἰμι, δίκαιός εἰμι. For the thought cf. § 97 n. Min. F. 17 § 6.

C d (4). *The several parts of the universe are held together by a strong centripetal force, which is the cause of life and warmth in all other things, and from which all are developed anew in the cyclical regeneration.* §§ 115—118 (cf. above, §§ 83—85).

Ch. XLV. **nec vero haec solum admirabilia:** cf. § 126 *atque illa mirabilia.*

**nihil majus:** we find *majus* contrasted with *mirabile Div.* II 141, cf. *Fat.* 17.

**ita stabilis est mundus:** Zeller (IV p. 562) thinks this represents the view of Panaetius, who denied the cyclical conflagration, cf. below §§ 118, 119; but we find the same in Cleomedes p. 5 (who gives the view of Posidonius and the Stoics generally), 'it is impossible for the world to be dissipated in space', νένευκε γὰρ πρὸς τὸ ἑαυτοῦ μέσον, καὶ τοῦτο ἔχει κάτω, ὅπου νένευκεν, cf. Philo *Prov.* II 56, Chrysippus ap. Plut. *St. Rep.* p. 1054 E 1.

**aptius:** cf. § 58 *aptissimus ad permanendum.*

**capessentes:** lit. 'clutching at'. **nituntur aequaliter:** 'maintain a uniform pressure'.

**ad medium rapit et convertit extrema:** 'turns back and hurries to the centre the outermost particles', cf. § 84 *deinde retrorsum vicissim ex*

*aethere aer, inde aqua, ex aqua terra infima.* Zeno (ap. Stob. *Ecl.* I 19 § 4) does not make it quite clear how the doctrine of the upward movement of air and fire is to be reconciled with the belief in universal gravitation: 'it is correctly said that all the parts of the world, especially those that have weight, seek the centre, and that this is the cause of the stability of the universe and of the earth; air and fire are absolutely without weight, still they have a sort of tendency to the centre of the universal sphere, though they naturally gather around its circumference' (γίγνεσθαι ταῦτά πως ἐπὶ τὸ τῆς ὅλης σφαίρας τοῦ κόσμου μέσον, τὴν δὲ σύστασιν πρὸς τὴν περιφέρειαν αὐτοῦ ποιεῖσθαι). Compare also passages cited by Zeller IV pp. 184, 185. The explanation seems to be that the all-pervading ether, while it has a naturally expansive and interpenetrative force, has also a strong cohesive force and thus holds all things together around the centre. See below, on the air, which has in itself a tendency to rise, and yet clings to the element immediately under it, so as to forbid any vacuum; and cf. Plut. *Comm. Not.* § 45, p. 1085 C γῆν μὲν γὰρ ἴσασι καὶ ὕδωρ οὔτε αὑτὰ συνέχειν οὔτε ἕτερα, πνευματικῆς δὲ μετοχῇ καὶ πυρώδους δυνάμεως τὴν ἑνότητα διαφυλάττειν. ἀέρα δὲ καὶ πῦρ αὑτῶν τε εἶναι δι' εὐτονίαν ἐκτατικὰ (expansive owing to their elasticity) καὶ τοῖς δυσὶν ἐκείνοις ἐγκεκραμένα τόνον παρέχειν καὶ τὸ μόνιμον καὶ οὐσιῶδες: also *Def. Or.* p. 425 (Chrysippus held) ὅτι ταῖς εἰς τὸ αὐτῆς μέσον ἡ οὐσία καὶ ταῖς ἀπὸ τοῦ αὐτῆς μέσου διοικεῖται καὶ συνέχεται κινήσεσι, Nemes. 2 p. 29 (the Stoics say) τονικὴν εἶναι κίνησιν περὶ τὰ σώματα εἰς τὸ ἔσω ἅμα καὶ τὸ ἔξω κινουμένην; Seneca *N. Q.* II 6, and VI 16 *non esse terram sine spiritu palam est; non tantum illum dico, quo se tenet et partes sui jungit, qui inest etiam saxis mortuisque corporibus* &c., *Vit. Beat.* 8 § 4 *mundus quoque cuncta complectens rectorque universi deus in exteriora quidem tendit, sed tamen in totum undique in se redit.* This Stoic doctrine of attraction to a centre was vehemently controverted by the Epicureans, as may be seen in Lucr. I 1052 foll. Even Plut. (*Fac. Orb. L.* c. 7) denies it.

§ 116. **si mundus globosus**: we find the converse argument in Cleom. I c. 8, p. 40, the earth being proved round, it follows that the universe must be so too.

**medium infimum**: cf. § 84, Arist. *Cael.* I p. 268 b, λέγω δ' ἄνω μὲν τὴν ἀπὸ τοῦ μέσου κίνησιν, κάτω δὲ τὴν ἐπὶ τὸ μέσον, Plato, *Phaed.* 112 E, Cleom. I pp. 9, 12.

**nihil interrumpat**: 'there is nothing to break the continuity', i.e. no vacuum; cf. Cleom. I p. 4 τὸ κενὸν ἐν τῷ κόσμῳ οὐδὲ ὅλως ἐστί, εἰ γὰρ μὴ δι' ὅλου συμφυὴς ὑπῆρχεν ἡ τῶν ὅλων οὐσία, οὔτ' ἂν ὑπὸ φύσεως οἷόν τ' ἦν συνέχεσθαι καὶ διοικεῖσθαι τὸν κόσμον, οὔτε τῶν μερῶν αὐτοῦ συμπάθειά τις ἂν ἦν πρὸς ἄλληλα, οὔτε μὴ ὑφ' ἑνὸς τόπου συνεχομένου αὐτοῦ καὶ τοῦ πνεύματος μὴ δι' ὅλου ὄντος συμφυοῦς, οἷόν τ' ἂν ἦν ἡμῖν ὁρᾶν ἢ ἀκούειν. μεταξὺ γὰρ ὄντων κενωμάτων ἐνεποδίζοντο ἂν ὑπ' αὐτῶν αἱ αἰσθήσεις.

§ 117. **huic continens aer**: cf. § 66 and § 100.

**fertur levitate sublimis**: the reading *sublime* is unsupported by MSS and forms a weak ending to the clause. For the use of the predicative

Adjective instead of the Adverb see Madv. § 300, Draeg. § 159; for *sublimis* see Liv. I 16 *sublimem raptum procella*, ib. 34 *sublimis abit;* it is frequent in the Comic poets. The Epicureans entertained more correct views on the gravity of bodies, explaining their apparent lightness as relative, not absolute, cf. Lucr. I 1083 foll., II 184 foll.

**et mari continuatus—et natura fertur ad caelum**: the two antagonistic qualities are combined, as in the case of ether below *et suum retinet...et conjungitur*, answering to *fertur ille quidem...sed tamen.* So *Fin.* III 62 *neque vero haec inter se congruere possent, ut natura et procreari vellet et diligi procreatos non curaret*, and the *conjunctionum negantia* in *Fat.* § 15 foll. *caelum* = *aether* as often.

**tenuitate**: cf. *tenuem* below and *tenuissimus* § 42. **vitalem spiritum**: cf. *vit. calorem* § 27.

**cum aeris extremitate conjungitur**: cf. § 100 of land and sea.

Ch. XLVI. **nisu**: cf. §115 *nituntur aequaliter;* the pressure at the centre is equal and opposite in all directions, therefore it remains at rest.

**ante dixisse videor**: in § 47 *nihil offensionis habere potest.* On *videor* see I 58 *videor audisse* n.

§ 118. **vaporibus aluntur**: the Stoics believed that the sun was fed from the sea, the moon from fresh streams, the stars from the moisture of the earth, cf. § 40 n., and § 83.

**refundunt**: on the moist influence of the moon see § 50 n. Rain was also supposed to come from the stars which were conspicuous during the rainy seasons, see nn. on the Aratean section. Geminus (*Uranol.* p. 56) sensibly remarks 'the risings and settings of stars are no more the causes of atmospheric changes than beacons are of a hostile invasion; they are merely signs. The earth being a mere point in comparison with the sphere of the fixed stars' *οὐδεμία ἀπόρῤῥοια διϊκνεῖται ἀπὸ τῶν ἀπλανῶν ἐπὶ τὴν γῆν.*

**eadem**: instead of *eosdem vapores*, see n. on § 7 *ea portendi*, Madv. 214 b.

**quod—consumat**: I see no reason for changing the Subj.: *quod* is indefinite, like ὃ ἂν, 'whatever, if any, portion is consumed'. See nn. on § 44 *quae moverentur*, § 72 *qui precabantur.* [I agree in retaining the Subj. but I should put it on somewhat different ground. *Nihil est quod consumat* is the regular constr. see *Gr.* § 1686: *admodum paulum est quod consumat* is also perfectly admissible (see Madv. § 365 *Anm.* 1). The edd. write *consumit* because *intereat*, not *sit*, has preceded, and therefore the agent causing the loss, not merely the fact of the loss, has to be added. The meaning will then be 'so that nothing hardly perishes, or only very little, which is consumed &c.' The subj. on the other hand means 'only the very little consumable by fire.' R.]

**eventurum putant...ut ignesceret**: the tense of the Subj. is attracted to that of the parenthetic clause (*id—dicebant*), see Draeg. § 151, 5, 6, *R. P.* III 4 *ratio civilis perficit in bonis ingeniis id, quod jam persaepe*

*perfecit, ut divina virtus exsisteret,* and above § 2 n. The Stoic doctrine of the cyclic conflagration was borrowed from Heraclitus, see Simplic. in Arist. *Cael.* p. 132 Karst. (cited in Bywater's Heraclitus fr. 20) Ἡρ. ποτὲ μὲν ἐκπυροῦσθαι λέγει τὸν κόσμον, ποτὲ δὲ ἐκ τοῦ πυρὸς συνίστασθαι πάλιν κατά τινας χρόνων περιόδους, ἐν οἷς φησι· Μέτρα ἁπτόμενος καὶ μέτρα σβεννύμενος. Seneca (*N. Q.* III 27 foll.) has a fine passage on the predestined destruction of the world by water in the cosmic winter, and then again by fire in the cosmic summer. Afterwards *omne ex integro animal generabitur dabiturque terris homo inscius scelerum...sed illis quoque innocentia non durabit, nisi dum novi sunt;* cf. Ov. *Met.* I 255 *esse quoque in fatis reminiscitur affore tempus, quo mare quo tellus correptaque regia caeli ardeat et mundi moles operosa laboret;* and my *Sketch of Anc. Phil.* p. 173. **ex quo**: from the using up of water to support the fire of the heavenly bodies. Boethus, a contemporary and fellow-disciple of Panaetius, made use of a similar argument to prove the reverse, viz. that the existing cosmos must be eternal; 'if the world is changed into fire, there is nothing left for fire to feed on, and therefore fire itself, the one principle of life, must perish'.

**Panaetium addubitare dicebant**: 'they used to say (when I attended lectures)'. On **addub.** see I 14 n. and Holden on *Off.* I 83. On *Panaetius* see *Introd.* p. xxx: his Eclectic tendency showed itself in departing from the general doctrines of his school on the question of divination and of the necessity of ἀπάθεια, as well as on that of the Conflagration. We gather from Stob. *Ecl.* I 414 that his view on the last point was only put forward as a probability (*addubitare*) πιθανωτέραν εἶναι νομίζει καὶ μᾶλλον ἀρέσκουσαν αὐτῷ τὴν ἀϊδιότητα τοῦ κόσμου ἢ τὴν τῶν ὅλων εἰς πῦρ μεταβολήν. See the discussion on the sources of this book. In like manner Cleomedes (I p. 3) leaves the question doubtful, and so the authority followed by C. (probably Posidonius) above § 85 (*mundi conjunctio*) *aut sempiterna sit necesse est hoc eodem ornatu quem videmus, aut certe perdiuturna, permanens ad longinquum et immensum paene tempus.*

**ad extremum**: in the *Magnus Annus* § 51 n.

**a quo—fieret**: 'for the new world to spring from'.

C d (5). *Thus there is a harmony and sympathy between the remotest parts of the universe; and our earth is benefited by a stellar influence.* § 119 (cf. above § 50 foll.).

§ 119. **multus videri**: from meaning simply 'copious', *multus* acquires the secondary force of 'tedious', cf. *Off.* II 56 (*Theophrastus*) *est multus in laudanda magnificentia; Acad.* II 17 *Antipatrum, qui multus in eo fuisset, reprehendebant; Orat.* II 358 *ne in re nota multus sim;* ib. § 17 *qui aut tempus quid postulet non videt aut plura loquitur aut se ostentat... aut denique in aliquo genere aut inconcinnus aut multus est, is ineptus esse dicitur*, where Wilkins translates 'officious, troublesome'. The same idea of diffuseness and tediousness is found in πολύς e.g. Aeschin. p. 33 πολὺς ἦν τοῖς ἐπαίνοις καὶ ἐπαχθής.

**concentus**: cf. above § 19 *omnibus inter se concinentibus mundi partibus.*

**cum summa Saturni—temperet**: 'while the furthest (of the five planets), that of Saturn, has a cooling influence, and the middle planet, that of Mars, has a heating influence, the planet of Jupiter, which is situated between these two, has an illuminating and moderating influence'.

**his interjecta Jovis temperet**: Plin. *N. H.* II 8 *Saturni sidus gelidae ac rigentis esse naturae...tertium Martis ignei, ardentis a solis vicinitate... ideoque hujus ardore nimio et rigore Saturni, interjectum duobus ex utroque temperari Jovem salutaremque fieri;* Vitruv. IX 1 § 16.

**duae Soli oboediant**: cf. n. on § 53, and Philo *Prov.* II 69 *duae cum sole currunt semper Mercurius et Venus...ceterorum impares sunt velocitates periodi.*

**Luna graviditates afferat**: see n. on § 50.

C d (6). *Wonders of vegetable life.* § 120.

Ch. XLVII § 120. **age**: cf. I 83 n.

**radicibus continentur**: 'live by their roots' (lit. are kept together, preserved, that is, from being resolved into their component parts), cf. § 83 and § 127 *ea quae a terra stirpibus continentur,* and § 29 *in radicibus inesse principatus putatur.* I think *stirps* above must have the sense, not of the following *truncus,* but of *radix,* as in § 83, where it is said *terra stirpes amplexa alit.*

**quo alantur**: 'that thereby they may be nourished'.

**libro aut cortice**: usually these are distinguished as the inner and outer bark, here as a thinner or thicker bark, cf. Plin. *N. H.* XVI § 126 *cortex aliis tenuis, ut lauro, tiliae; aliis crassus, ut robori; aliis levis, ut malo, fico; idem scaber robori, palmae...carnosus suberi, populo; membranaceus ut viti, harundini; libris similis, ceraso; multiplex tunicis, ut vitibus ...quibusdam simplex, ut fico, harundini;* ib. VII 1 *truncos etiam arboresque cortice interdum gemino a frigoribus et calore tutata est natura.* I take *liber* here to be Pliny's *cortex levis et simplex.* The two words are interchangeably used Cato *R. R.* 45 § 3, Colum. XI 2 § 37, 41, V 6 § 12.

**claviculis adminicula**: cf. *Senect.* 52 *vitis...ut se erigat, claviculis suis quasi manibus, quicquid est nacta, complectitur.* **clav.** properly a little hook, the simplest form of key being a hook; see Voss on Aratus l. 191.

**ut animantes**: see this beautifully shown in Darwin's book on Climbing Plants.

**a caulibus refugere dicuntur**: *caulis,* which properly means stalk, is used in a narrower sense for *brassica* (ῥάφανος) our 'cabbage', hence called 'colewort'; as in Hor. *Sat.* I 3 116, II 4 15, Juv. I 133, V 87. The antipathy of the vine to the cabbage is also stated by Pliny *N. H.* XVII 24 *odit (vitis) et caulem et holus omne;* XX 34 *(brassicam) vino adversari ut inimicam vitibus: antecedente in cibis caveri ebrietatem, postea sumpta crapulam discuti;* Cato *R. R.* 156; Theophrast. *H. P.* IV 16, *C. P.* II 18, who attri-

butes this dislike to the odour of the cabbage, ὀσφραντικὸν γὰρ ἡ ἄμπελος; Varro *R. R.* I 16 compares it to the mutual antipathy of the oak and the olive, *usque eo est contrarium natura, ut arbores...fugiant, ut vitis adsita ad holus facere solet;* Philo *Animal.* 94 (*arbores*) *tamquam osculo salutando amplectuntur se invicem ut...ulmum vitis; aliquas tamen non solum aversatur vitis verum etiam evitat...vitem evitant populus et lauri.*

C d (7). *Wonders of animal life.* §§ 121—132. *a. General provision of nature for the preservation of the individual.* §§ 121—123.

§ 121. **ut in suo quaeque genere permaneat**: 'what provision is made in each case for the preservation of the species'. **animans** used in all three genders, like *quadrupes:* the feminine usually has reference to brutes (*bestia*). **quaeque** followed by the Sing. as in § 127 *quaeque defendat*, cf. Madv. *Fin.* v 42.

**coriis tectae**: 'pachyderms'.

**pluma—squama**: for the collective use cf. Sall. frag. *Hist.* IV 59 D *lintea ferreis laminis in modum plumae annexuerant:* Ov. *Met.* XV 725 (the snake) *litoream tractu squamae crepitantis harenam sulcat.*

**effugia pinnarum** = *pinnas quibus effugiant;* for the abstract plural see § 98.

**enumerare possum**: cf. I 101, II 10. 'I might show in detail what a provision has been made in the form of each animal for getting and preparing this food, how skilful and exact is the arrangement of the various parts, how marvellous the fashioning of the limbs'. The general question *quae discriptio* is particularized in the following *et quam sollers subtilisque.*

§ 122. **beluis**: evidently not distinguished from *animal* or *bestia* used below, cf. I 77 n.

**sensum et appetitum**: cf. above § 34 n., III 33 and Diog. L. VII 85. **altero secernerent** = sc. *sensu.*

**dentibus ipsis**: the teeth themselves (as opposed to such instrumentality as the *unguium tenacitas*) not only cut and chew the food, but catch and hold it.

**sugunt**: suck, as the bat or leech; **carpunt**: bite or tear off, as the grazing ox; **vorant**: swallow whole, as the boa constrictor; **mandunt**: chew, most commonly used of the horse; here perhaps to be understood of carnivorous animals.

**cibum terrestrem**: cf. Plaut. *Capt.* I 2 86 *terrestris cena est...multis holeribus.*

§ 123. **quae autem altiora sunt**: instead of the more regular *alia autem*, cf. Madv. *Fin.* exc. I § 6.

**manus data elephanto**: cf. Arist. *P. A.* IV 12 p. 693 b τοῖς ἐλέφασιν ὁ μυκτὴρ ἀντὶ χειρῶν, ib. II 16 p. 658 b, Curt. VIII 14 § 27 *terribilis illa facies erat cum manu arma virosque corriperent elephanti;* Plin. *N. H.* VIII 10 *spirant et bibunt odoranturque haud improprie appellata manu* (but in c. 7 he uses the Aristotelian term *proboscis*): the same writer uses *manus* of

the fore-paw of the bear (ib. c. 36). Hence Lucr. v 1303 speaks of the elephant as *boves Lucas turrito corpore, taetras, anguimanus.*

**habebat ad pastum**: the tense would suggest that the elephant was first created without his trunk, and then that this was developed to meet a practical difficulty: so in the following sentence, the natural diet of each creature is supposed to be determined first (*erat is cibus*) and afterwards nature provides the means for obtaining this. See n. on *deberet* § 141.

Ch. XLVIII. **quibus bestiis...(iis) dedit**: for exx. of the omission of the Demonstrative, where the Subject is attracted into the Relative clause, see Madv. § 321, Draeg. § 472, Krüger *Unters.* § 81.

C d (7) β. *Special adaptations of animal nature for the preservation of the individual.* §§ 123—127.

**alii generis bestiis**: Mu. objects to the form *alius* read by most edd. and says that we either find *alterius generis*, as in Vitruv. VIII 4 § 1, or *alii generis*, as in Varro *L. L.* IX 67 *alii generis vinum*, *R. R.* I 2 § 19 *alii dei ara;* and that *alius* (Gen.) is not found in Cic. except in *Invent.* II 6 § 21, but *aliae pecudis* in *Div.* II 30 and *aliae rei* Lucr. III 918; some MSS have *altero* Dat. in § 66. He omits *generis* on the ground that *multae bestiae sui quoque generis bestiis vescuntur*, but the general belief of antiquity was to the contrary effect, see Juv. XV 159 with Mayor's n., Quintil. *Decl.* 12 § 27, Sen. *Contr.* 9 § 10.

**ut in araneolis aliae texunt**: an abbreviated expression for '*ut in araneolis fit: aliae texunt*', cf. *Fin.* IV 75 *ut in fidibus pluribus, si nulla earum ita contenta nervis sit, ut concentum servare possit, omnes aeque incontentae sint, sic peccata...aeque discrepant;* where Madv. compares III 63 *ut enim in membris alia sunt tamquam sibi nata...aliqua etiam ceterorum membrorum usum adjuvant,...sic* &c. *araneola* is ἅπ. λεγ. here, as the Masc. *araneolus* in *Culex* 2. Aristotle describes different kinds of spiders *H. A.* IX 39 (τῶν λεγομένων λύκων) τὸ μικρὸν οὐκ ὑφαίνει ἀράχνιον, τὸ δὲ μεῖζον τραχὺ καὶ φαῦλον πρὸς τῇ γῇ καὶ ταῖς αἱμασιαῖς· ἐπὶ τοῖς στομίοις δὲ ἀεὶ ποιεῖ τὸ ἀράχνιον καὶ ἔνδον ἔχον τὰς ἀρχὰς τηρεῖ, ἕως ἂν ἐμπεσόν τι κινηθῇ (*si quid incidit*), ἔπειτα προσέρχεται. This is contrasted with the more cunning weaver, who spreads a large net to entangle her prey: cf. Plin. *N. H.* XI 28, Aelian *N. A.* VI 57 οὐ μόνον δὲ ἄρα ἦσαν ὑφαντικαὶ αἱ φάλαγγες...πεφύκεσαν δὲ καὶ γεωμετρίαν δειναί· τὸ γοῦν κέντρον φυλάττουσι καὶ τὴν περιφέρειαν ἀκριβοῦσιν ἰσχυρῶς καὶ Εὐκλείδου δέονται οὐδέν. Cic. seems to draw a distinction between those which make large nets, in the midst of which they lie in wait, and those that hide themselves in holes, such as the trapdoor spiders (*aranea saccata* of Linnaeus); but the latter are not very clearly described. We want more information as to the place in which the spider hides and into which the victim falls (*incidit* as opposed to *inhaeserit*), and *ex inopinato* is plainly unsuited to the word *observant* with which it is joined in the MSS. In the text I have adopted Allen's emendation, but I think it

probable that there has been further loss in the MSS, and that the original may have been something like *ut ex fovea observant et ex inopinato, si quid incidit*, &c., or *ex insidiis observant, ut ex inopinato, si quid inciderit, arripiant*. It is possible however to take *observant et arripiunt* as a sort of hendiadys, so as to allow the force of *ex inop.* to extend to the 2nd word. See crit. nn.

**idque consumunt**: on the pleonastic Demonstrative see § 27, and Index.

**pina**: cf. *Fin.* III 63 (some beasts are solitary) *at illa quae in concha patula pina dicitur, isque qui enat e concha, qui, quod eam custodit, pinoteres vocatur, in eandemque cum se recepit includitur, ut videatur monuissse ut caveret...aliorum causa quaedam faciunt*. Aristotle says that the pea-crab (*squilla*, πιννοτήρης) finds a lodging in the shell of the 'naker' or mussel (πίννη) and that the latter dies, if separated from the former (*H. A.* V 15). So Chrysippus (ap. Athen. III c. 38) ἐν τῷ πέμπτῳ περὶ τοῦ καλοῦ καὶ τῆς ἡδονῆς, ἡ πίννη, φησί, καὶ ὁ πιννοτήρης συνεργὰ ἀλλήλοις, κατ' ἰδίαν οὐ δυνάμενα συμμένειν...ἡ πίννη διαστήσασα τὸ ὄστρακον ἡσυχάζει τηροῦσα τὰ ἐπεισιόντα ἰχθύδια, ὁ δὲ πιννοτήρης παρεστώς, ὅταν εἰσέλθῃ τι, δάκνει αὐτὴν ὥσπερ σημαίνων, ἡ δὲ δηχθεῖσα συμμύει· καὶ οὕτως τὸ ἀποληφθὲν ἔνδον κατεσθίουσι κοινῇ; Oppian *Hal.* II 186 foll., also Plin. *N. H.* IX 42, Philo *de Anim.* § 60. In the *English Cyclopaedia* there is a letter to Linnaeus from a correspondent at Smyrna dated 1749, in which the latter says 'the *Pinna muricata* or Great Silk Mussel is here found at the bottom of the sea in large quantities, being a foot long. The 'Οκτωπόδια or Cuttle-fish with eight arms watches the opportunity, when the mussel opens her shell, to creep in and devour her; but a little crab, which has scarcely any shell, lodges constantly in this shell-fish; she pays a good rent by saving the life of her landlady, for she keeps a constant look-out through the apertures of the shell, and on seeing the enemy approach she begins to stir, when the πίνα (for so the Greeks call the shell) shuts up her house, and the rapacious animal is excluded. I saw this shell-fish first at the island of Milo and found such a little crab in all I opened. I wondered not a little what was her business there, but when I came here, I was first informed of it by the secretary of our consul, a curious and ingenious man, who has lived long in this place. This was afterwards confirmed by several Greeks, who daily catch and eat both these animals'.

**societatem coit**: a technical phrase = *coeundo societatem efficit*, see Mayor on 2. *Phil.* 24. [Nep. *Conon* 2 § 2, Cic. *Rosc. Am.* §§ 87, 96, *Rabir. perd. reo* § 21 *fin.* Also in the Digest. J. E. B. M.]

§ 124. **bestiolis cibus quaeritur**: on the Dat. used for the Abl. of Agent after Passives see Madv. § 250.

**congregatae**: used of two, as in *pro Quint.* 52 *is quicum te voluntas congregasset*. I cannot think the word **congressu** correct; *conventu* or *consensu* would better express a compact, as opposed to an instinctive habit: cf. Tusc. I 30 *omnes esse vim divinam arbitrantur. nec vero id collocutio*

*hominum aut consensus effecit...lex naturae putanda est.* We know that *consensus* and *consessus* are easily confused, as in I 61, and the *gre* may have come from *congregatae* below. Athenaeus l. c. asserts that the association was instinctive.

**natura**: Abl. of Cause. At one time I was disposed to retain the reading of the MSS *naturae ipsae*, understanding by it 'their very natures are associated', i.e. 'they are associated by their natural constitution', but the harshness of the zeugma involved in *congressune aliquo* leads me to prefer Walker's reading, which would be easily corrupted by the assimilation of *ipsa* to the following word.

**est admiratio in bestiis**: 'there is a wondering (i. e. ground for wonder) in the case of beasts' = *in quo admirandum est* above, cf. Pliny *N. H.* x 55 cited below on *anitum ova*. [Cf. *similitudo* Madvig *Finn.* v § 42. J. E. B. M.]

**veluti**: 'for instance', cf. I 101 *velut ibes.* **crocodili**: three of the best MSS read *corcodili* here. It is the form used by Phaedr. I 25 4 *a corcodilis ne rapiantur traditum est*, also l. 6, and Mart. III 93 7. Ritschl (*Opusc.* II 536) holds it to be the original Latin form, like Cortona for Κρότων, Tarracina for Τραχίνη, Aesculapius for Ἀσκλήπιος, and that it was displaced by the regular Greek form as that language became better known in Rome. **niti**: 'to move a limb'.

**anitum ova**: Plin. x 55 *super omnia est anatum ovis subditis atque exclusis admiratio (gallinae), primo non plane agnoscentis fetum, mox incertos incubitus sollicite convocantis, postremo lamenta circa piscinae stagna mergentibus se pullis natura duce.*

**exclusi fotique**: 'hatched and reared (lit. kept warm in the nest)'; cf. § 129, where *excudo* is used with similar meaning; Lucr. v 802 *volucres ova relinquebant exclusae tempore verno*, Colum. VIII 14 (of the hens) *si prohibeantur fetus suos excludere;* used of the eggs by Pliny l.c.

**conservandi sui**: see Madv. § 417, who cites *Catil.* I 9 *principes civitatis non tam sui conservandi...causa Romam fugerunt*, for *se conservandi*, the Neut. Gen. *sui* being used if the gerundive is used, whether *se* be Sing. or Pl., according to the rule given in § 297 b ('when a personal or reflexive pronoun ought to be joined to a word as an object in the genitive, the genitive neuter singular of the corresponding possessive pronoun is used', e.g. *studium nostri* 'devotion to us', lit. 'to our interest'), cf. Caesar *B. G.* III 6 *neque sui colligendi hostibus facultatem relinquunt; Div.* II 39 *doleo Stoicos nostros Epicureis irridendi sui facultatem dedisse.* For exx. of the use of *suus* in reference to a word which is not the subject of the sentence see Roby § 2265. There is something of pleonasm in the phrase **custodiam cons. sui**: it would have been more regular to have *custodiam salutis* or *curam conservandi.*

Ch. XLIX. **legi scriptum**: 'I have read in a book', cf. *Deiot.* 19 *ut scriptum legimus.* **nominaretur**: for Imp. Subj. after proper Perf. Ind. see I 3 n. and Index.

**platalea**: Plin. *N. H.* x 40 copies this, slightly altering the name, *platea nominatur advolans ad eas quae se in mari mergunt, et capita illarum morsu corripiens donec capturam extorqueat, eadem cum devoratis se implevit conchis calore ventris coctas evomit, atque ita ex iis esculenta legit, testas excernens.* No earlier or independent authority is cited for this characteristic, but it agrees with the accounts given of the Frigate or Man-of-War Bird (*Pelicanus aquila* Linn.) and also of the *Skua stercoraria* (*Engl. Cycl.*), 'they pursue the Sea-mews and Terns, which may be termed their purveyors, and sometimes even Boobies and Cormorants, their only aim being to deprive these birds of the prey they have caught. They pursue, harass and beat them, until they have forced them to disgorge and drop their booty, which they catch before it falls into the sea'. See also *Engl. Cycl.* under *Pelicanus* and *Booby.* The word *platea* is the regular name for the Spoonbill, which has no such propensity: Philo *de Animal.* § 31 calls the bird *poelotes.*

**quae se in mari mergerent**: 'divers', which the pelican is not.

**cum emersissent piscemque cepissent**: 'had come to the surface with a fish', a sort of *hysteron-proteron.*

**captum amitterent**: Allen cites Curt. IV 6 *praetervolans corvus glebam, quam unguibus ferebat, subito amisit,* cf. also 2 *Verr.* IV 44 *praeda de manibus amissa.*

**in quod ipsa invaderet**: 'for the other to pounce upon for itself'. This is the usual construction in Cic., cf. 2 *Phil.* 77 *in collum invasit,* and Sch. *Opusc.* III 337.

**conchis complere**: taken from Arist. *H. A.* IX 10 οἱ πελεκᾶνες οἱ ἐν τοῖς ποταμοῖς γινόμενοι καταπίνουσι τὰς μεγάλας κόγχας καὶ λείας· ὅταν δὲ ἐν τῷ πρὸ τῆς κοιλίας τόπῳ πέψωσιν, ἐξεμοῦσιν ἵνα χασκουσῶν τὰ κρέα ἐξαιροῦντες ἐσθίωσιν. Aelian *H. A.* v 35, and Plut. *Sol. An.* p. 967, state the same thing about the heron (ἐρωδιός *ardea*). By πρὸ τῆς κοιλίας Arist. probably means the pouch (προηγορεών Ael. l. c.), as he uses much the same language of the 'crop' of fowls, *H. A.* II 17 οἱ μὲν γὰρ ἔχουσι πρὸ τῆς κοιλίας προλόβον οἷον ἀλεκτρυών...οἱ δὲ προλόβον μὲν οὐκ ἔχουσιν, ἀλλ' ἀντὶ τούτου τὸν στόμαχον (the gullet) εὐρὺν καὶ πλατὺν ἢ δι' ὅλου (as the λάρος καὶ καταρράκτης),...ἔνιοι δὲ τῆς κοιλίας αὐτῆς τι ἔχουσιν ὅμοιον προλόβῳ (translated by Pliny XI 79). Cf. *Part. An.* III 14 'owing to the absence of teeth birds have τὸν καλούμενον προλόβον ἀντὶ τῆς τοῦ στόματος ἐργασίας...ἢ πρὸ τῆς κοιλίας μέρος τι ὀγκῶδες ἐν ᾧ προθησαυρίζουσι τὴν ἀκατέργαστον τροφήν'. Pliny tells a similar tale of the *onocrotalus,* which is evidently the pelican, (x 66) *olorum similitudinem onocrotali habent, nec distare existimarentur omnino nisi faucibus ipsis inesset alterius uteri genus. Huc omne inexplebile animal congerit. Mox perfecta rapina sensim inde in os reddita in veram alvum ruminantis more refert.* We need not suppose that C. meant the pouch by his *stomachus,* on which see below § 135, any more than Pliny did by his *venter* (c. 40 cited above), still less Aelian (III 20) by his ἐν μυχῷ τῆς γαστρός.

§ 125. **ranae marinae**: the Angler or Fishing Frog, *Lophius piscato-*

*rius*, is usually about three feet long, lives at the bottom of the sea, by means of its fins stirs up the mud in such a manner as to conceal itself from other fishes, has three long filaments on the upper part of the head: the glittering appendages at the end of these filaments are said to attract the smaller fishes, like a bait. See *Eng. Cycl.* Aristotle mentions it in speaking of the stratagems of animals, (*H. A.* IX 37) ὁ μὲν γὰρ βάτραχος τοῖς πρὸ τῶν ὀφθαλμῶν ἀποκρεμαμένοις (sc. θηρεύει, 'ensnares the fish with the filaments which hang in front of his eyes'), ὧν τὸ μὲν μῆκός ἐστι τριχοειδές, ἐπ' ἄκρου δὲ στρογγύλον ὥσπερ προσκείμενον ἑκατέρῳ δελέατος χάριν· ὅταν οὖν ἐν τοῖς ἀμμώδεσιν ἢ θολερώδεσιν ἀναταράξας κρύψῃ ἑαυτόν, ἐπαίρει τὰ τριχώδη, κοπτόντων δὲ τῶν ἰχθυδίων συγκατάγει μέχρι περ ἂν πρὸς τὸ στόμα προσαγάγῃ. He calls it βάτραχον τὸν ἁλιέα καλούμενον, and so Plin. *H. N.* IX 42 *piscatrix*. Schneider in his note on Arist. l.c. says of this passage of Cic. *quaedam excidisse videntur*, and certainly we should have expected the antecedent to *ad quas* to have some reference to the filaments described by Arist.: if the reading is correct, C. seems to have supposed the *rana* to have concealed itself in the sand by the sea (*prope aquam*), not actually in the sea.

**miluo bellum cum corvo**: this is described by Arist. *H. N.* IX 1 ὑφαιρεῖται τοῦ κόρακος ὁ ἰκτῖνος ὅ τι ἂν ἔχῃ, διὰ τὸ κρείττων εἶναι τοῖς ὄνυξι καὶ τῇ πτήσει, but it is of other birds, especially the κορώνη and γλαύξ, that he says τὰ ᾠὰ κατεσθίουσιν ἀλλήλων. Plin. IX 25 says the *aesalon* and *chloreus* destroy the eggs of the *corvus*.

**grues trianguli efficere formam**: Aristotle (*H. A.* IX 10) says a good deal about cranes, but does not give the particulars mentioned by C. which are probably taken from the dialogue *De philosophia* (see above §§ 42, 44, 95). Pliny (*N. H.* X 23 § 63) tells the same with reference to wild geese and swans *liburnicarum modo rostrato impetu feruntur, facilius ita findentes aera quam si recta fronte impellerent: a tergo sensim dilatante se cuneo porrigitur agmen, largeque impellenti praebetur aurae. Colla imponunt praecedentibus; fessos duces ad terga recipiunt;* but in Aelian *N. A.* III 13 and Plutarch *Solert. An.* p. 967 it is related of cranes. Allusions are made to the order of their flight in Lucan V 710, Mart. IX 14 and XIII 75, where it is compared to the letter Δ; others compare it to V or Υ. [Auson. *Id.* XII *de litteris monosyll.* 25, Philostr. *Heroic.* c. 11 § 4, Hyg. *Fab.* 277, Hieron. *Ep.* 125 15, Claud. *Gild.* 477, Cassiod. *Var.* 8 *ep.* 12, Hemsterh. on Lucian I p. 305, G. J. Voss *de Arte Grammatica* I 25, Bochart *Hieroz.* Pt. II I 11. J. E. B. M.] On the change from the Indirect to the Direct Construction (*efficere—pellitur*) see above § 39 *est autem mundo* n.

**summo angulo**: 'the apex of the triangle'.

**aer adversus**: not necessarily an adverse wind, as Sch. and Plut. l.c. (ὅταν ᾖ πνεῦμα πολύ), but the air which meets them as they cleave their way through it.

**sensim**: this is scarcely intelligible by itself: probably *dilatante se cuneo* (Plin. l.c.) has been lost.

**ea**: see Index under *Pleonastic Demonstrative.*

**a puppi ventis**: 'by stern winds', cf. § 14 *praeter naturam portentis*, § 87 *solarium ex aqua:* the plural means 'whenever they occur'.

**non habet ubi nitatur**: 'has nothing to rest on', cf. 2 *Verr.* II 155 *quo confugies? ubi nitere?* and Matt. viii 20 ὁ υἱὸς τοῦ ἀνθρώπου οὐκ ἔχει ποῦ τὴν κεφαλὴν κλίνῃ. The frequent change of leader is an observed fact: the resting of the head is doubtful.

**succedit ex iis**: cf. *R. P.* I 34 *si e vectoribus sorte ductus ad gubernaculum successerit;* Sall. *Jug.* 93 § 7 *Marius cum Ligure promissa ejus cognitum ex praesentibus misit;* Tac. *Ann.* I 77 *e plebe.*

§ 126. **proferre possum**: cf. § 121. **genus ipsum**: the general idea is contrasted with particular exx., as in I 97 *ipsa similitudo*, cf. I 45 *ipsorum deorum.*

Ch. L. **illa**: in reference to the further instances of intelligence which follow. We have it repeated four times within a few lines, *illud* § 125, *jam vero illa, atque illa* § 126, *jam illa* § 127.

**nuper**: contrasting the recent date of science with the instinctive knowledge of brutes, cf. *Div.* I 86 *neque ante philosophiam patefactam, quae nuper inventa est, hac de re communis vita dubitavit.* If the explanatory clause which follows is genuine, we must understand it as a jocose addition on the part of Cic.

**ea quae nuper...ibes se curant**: Sch. is, I think, right in regarding this as an abbreviated expression for *a bestiis fieri videmus; nam vomitione canes* &c. It would become regular if the parenthetic clause were put in apposition at the end. For the subject matter see Arist. *H. A.* IX 6 αἱ κύνες ὅταν τι πονῶσιν, ἔμετον ποιοῦνται φαγοῦσαί τινα πόαν, Plut. *Solert. An.* p. 974 τῆς ἴβεως τὸν ὑποκλυσμὸν ἅλμῃ καθαιρομένης Αἰγύπτιοι συνιδεῖν καὶ μιμήσασθαι λέγουσιν (cf. Herod. II 77); Plin. VIII 27 § 97 mentions the use of the clyster as one of the lessons which have been taught by animals (on which see *Dict. of Ant.* under *Medicina*), so Philo (*Anim.* 38) 'men have to call in a physician, but animals know by instinct what treatment is required, as the goat the *dictamnus*'. Bacon (*De Augm.* V 2) cites these and similar instances as showing how the arts had sprung up. Hippocrates seems to have been the first to maintain this view, cf. the quotation from him in Pattison's n. on Pope's *Essay on Man* III 169 'see him from nature rising slow to art', and nn. on *inventa animo* below § 150.

**pantheras**: Arist. *H. A.* l. c. cont. ἡ δὲ πάρδαλις ὅταν φάγῃ τὸ φάρμακον τὸ παρδαλιαγχὲς ζητεῖ τὴν τοῦ ἀνθρώπου κόπρον· βοηθεῖ γὰρ αὐτῇ, Plin. VIII 27 § 100 *pantheras perfricata carne aconito...barbari venantur.* **barbaria**: used of a particular barbarous region, as in § 88.

**quo cum essent usae non morerentur**: 'a remedy of such a kind that, after using it, they did not die.'

**capras**: Arist. l. c. ἐν Κρήτῃ φασὶ τὰς αἶγας τὰς ἀγρίας, ὅταν τοξευθῶσι, ζητεῖν τὸ δίκταμνον· δοκεῖ δὲ τοῦτο ἐκβλητικὸν εἶναι τῶν τοξευμάτων ἐν τῷ σώματι, Theophr. *H. P.* IX 16, Plin. VIII § 97, Diosc. *Mat. Med.* III 34.

The wound of Aeneas is healed with it *Aen.* XII 411. I have adopted Allen's emendation *venantis* for *venenatis*, which was no doubt repeated from the preceding *venenata*. Nowhere else is there allusion to poisoned arrows in reference to the *dictamnus:* its power was supposed to be that of stanching the blood and causing the arrow to fall out; also it was used πρὸς τὰς δυστοκίας τῶν γυναικῶν· ἢ γὰρ εὐτοκεῖν φασι ποιεῖν ἢ παύειν γε τοὺς πόνους (Theophr. l. c.). Again we never read of poisoned arrows being used in Crete, but only among barbarous races, such as the Scythians (see *Dict. of Ant.* under *sagitta*): indeed there could be no use for them in Crete, as we are expressly told that the island was free from all wild beasts and noxious animals (see reff. in the art. on *Creta* in *Dict. of Geog.*), and we can hardly suppose that poisoned arrows would have been employed against animals which were hunted for food, and that by a race of men who were famed for their skill in archery.

§ 127. **cervae**: Arist. gives a somewhat different account (l.c. IX 5) τῶν ἀγρίων ἡ ἔλαφος οὐχ ἥκιστα δοκεῖ εἶναι φρόνιμον τῷ τε τίκτειν παρὰ τὰς ὁδούς...καὶ ὅταν τέκῃ ἐσθίει τὸ χόριον πρῶτον· καὶ ἐπὶ τὴν σέσελιν δὲ τρέχουσι καὶ φαγοῦσαι οὕτως ἔρχονται ἐπὶ τὰ τέκνα πάλιν. Pliny combines this with Cicero's (*N. H.* VIII 32 § 112) *feminae ante partum purgantur herba quadam quae seselis dicitur, faciliore ita utentes utero. A partu duas habent herbas quae aros et seselis appellantur. Pastae redeunt ad fetum.*

**dentibus**: 'tusks' )( **morsu**, where the whole jaw is employed, often used of the lion, e.g. Seneca *Agam.* 740, *Herc. F.* 946, *Troad.* 797.

**sepiae**: Arist. l.c. IX 37 § 19. τῶν μαλακίων πανουργότατον μὲν ἡ σηπία καὶ μόνον χρῆται τῷ θόλῳ κρύψεως χάριν καὶ οὐ μόνον φοβουμένη, Plin. *N. H.* IX 29. Plutarch (*Sol. An.* 978 A) compares it to the Homeric Gods, who disappeared in a cloud, when hard-pressed. The liquor was used for ink (Pers. III 13).

**torpedines**: Arist. l.c. § 3 ἥ τε νάρκη ναρκᾶν ποιοῦσα ὧν ἂν κρατήσειν μέλλῃ ἰχθύων...λαμβάνει τὰ ἐπινέοντα·...φανερά ἐστι καὶ τοὺς ἀνθρώπους ποιοῦσα ναρκᾶν, cf. Plin. *N. H.* XXXII 1, Plato *Meno* 80 (the famous comparison of Socrates to the torpedo), Plut. l. c., Claudian *Id.* 3, Philo *Anim.* 30.

**odoris foeditate**: Arist. *Part. An.* III 2 p. 663 a ὅσοις δ' ἄχρηστος πέφυκεν ἡ τῶν κεράτων ἐξοχή, τούτοις προστέθεικεν ἑτέραν βοήθειαν ἡ φύσις, οἷον τοῖς μὲν ἐλάφοις τάχος...τοῖς δὲ βονάσοις (the bison) τὴν τοῦ περιττώματος ἄφεσιν· τούτῳ γὰρ ἀμύνεται φοβηθέντα καὶ ταύτῃ δὲ τῇ προέσει διασώζεται ἕτερα, Plin. *N. H.* VIII 16 § 40 *tradunt in Paeonia feram esse quae bonasus vocatur equina juba, cetera tauro similem, cornibus ita in se flexis ut non sint utilia pugnae: quapropter fuga sibi auxiliari, reddentem in ea fimum, interdum et trium jugerum longitudine; cujus contactus sequentes ut ignis aliquis amburat* (translated from Arist. *H. A.* IX 45); Aelian *N. A.* VII 3 gives it the name μόνωψ. Since the discovery of America, the skunk has supplied a less doubtful example.

C d (7) γ. *Adaptations of animal nature for the preservation of the species.* §§ 128, 129.

Ch. LI. **a providentia**: cf. *a natura sustinentur* § 133.

**a terra stirpibus continerentur**: the same phrase occurs in § 83.

**bacarum**: includes all fruits which have a stone inside, and is frequently used by C. for the produce of trees in opposition to *fruges* of plants, cf. *Div.* I 116, and *Senect.* 5, *fruges terrae bacasve arborum; Tusc.* I 31 *arbores seret agricola quarum aspiciet bacam ipse nunquam; Leg.* II 19 *certasque fruges, certasque bacas sacerdotes publice libanto; Tusc.* V 37 *neque est ullum quod non ita vigeat...ut aut flores aut fruges fundat aut bacas;* above § 37 we have *fruges atque fructus.*

**stirpe**: used here in the wide sense of 'plant', as in § 36 and § 99.

§ 128. **commiscendorum**: cf. Homer's *φιλότητι μιγῆναι*, *Div.* I 60 *ut cum matre corpus miscere videatur*, Virg. *G.* II 327 *Aether conjugis in gremium descendit...magno commixtus corpore.*

**locis**: cf. Plin. XI 84 *uterus, quod alio nomine locos appellant;* like *τόπος* Arist. *H. A.* VI 18, VII 3; it is used also of the male by Lucr. IV 1034.

**eoque saeptum fingit animal**: these words, which Sch. translates 'with the food gives shape to the embryo inclosed', present several difficulties: (1) the Abl. with *fingo* naturally denotes the instrument; the material out of which anything is formed is properly expressed by the prep. *ex:* (2) it seems strange to speak of the *semen* as something external to the *animal:* (3) are we to take *saeptum* with *semen* or with *animal?* If we take *saeptum animal* as a periphrasis for *fetus*, we should have expected (as Heind. says) *in utero saeptum*, omitting the *ex utero* following. For the general meaning compare Favorinus ap. Gell. XII 1 *nonne hac quoque in re sollertia naturae evidens est, quod, postquam sanguis ille opifex in penetralibus suis omne corpus hominis finxit, adventante jam partus tempore, in supernas se partes perfert?* Arist. *Gen. An.* IV 4 p. 771 b *τὸ σπέρμα τὸ ἄρρενος, εἴτε συμβάλλεται πρὸς τὴν ὕλην μόριον γινόμενον τοῦ κυήματος καὶ τῷ τοῦ θήλεος σπέρματι μιγνύμενον, εἴτε...ὥσπερ φαμέν, συνάγον καὶ δημιουργοῦν τὴν ὕλην τὴν ἐν τῷ θήλει*, ib. I 21 *τὸ μὲν ἄρρεν ἀρχὴν κινήσεως (συμβάλλεται), τὸ δὲ θῆλυ τὴν ὕλην*, 22 *ἡ μορφὴ καὶ τὸ εἶδος ἀπ' ἐκείνου* (the male) *ἐγγίνεται διὰ τῆς κινήσεως ἐν τῇ ὕλῃ* (this clears up the second difficulty raised above, since the *semen* supplies only the formal and efficient, not the material cause); Arius ap. Euseb. *P. E.* XV 20 *τὸ δὲ σπέρμα φησὶν ὁ Ζήνων εἶναι πνεῦμα μεθ' ὑγροῦ, ψυχῆς μέρος καὶ ἀπόσπασμα.* Its mode of operation is described in a passage quoted from Simplicius on § 81, where it is regarded as a type of the creative energy of nature, cf. Diog. VII 136 *ὥσπερ ἐν τῇ γονῇ τὸ σπέρμα περιέχεται, οὕτω καὶ τοῦτον (τὸν θεὸν) σπερματικὸν λόγον ὄντα τοῦ κόσμου τοιόνδε ὑπολείπεσθαι ἐν τῷ ὑγρῷ, εὐεργὸν αὑτῷ ποιοῦντα τὴν ὕλην πρὸς τὴν τῶν ἑξῆς γένεσιν* (viz. the four elements). The

last passage might suggest that C. has confounded *cibus* (the food taken by the mother) with *materia*, in which case *saeptum* might refer to *semen* (=Gr. περιέχεται). Certainly, according to strict Stoic view, the *fetus* should not have been called *saept. animal*, as they answered the question εἰ τὸ ἔμβρυον ζῷον in the negative, μέρος εἶναι αὐτὸ τῆς γαστρός, οὐ ζῷον *Plac. Phil.* v 15. If we keep the reading, I should understand it as follows, 'the seed draws all the nourishment, i.e. the ὕλη, to itself and being inclosed in it moulds the embryo'. [Cf. Coleridge *Aids* (conclusion p. 328 ed. 6), 'herein consists the essential difference...of an organ from a machine, that not only the characteristic shape is evolved from the invisible central power, but the material mass itself is acquired by assimilation. The germinal power of the plant transmutes the fixed air and the elementary base of water into grass and leaves; and on these the organific principle in the ox or elephant exercises an alchemy still more stupendous. As the unseen agency weaves its magic eddies, the foliage becomes indifferently the bone and its marrow, the pulpy brain or the solid ivory. That what you see is blood, is flesh, is itself the work, or shall I say, the translucence of the invisible energy' &c. R.] But I am rather disposed to read *ex eoque conceptum* (or *coeptum*) *fingit animal*, 'out of the ὕλη moulds the rudimentary animal'.

**ut intellegamus**: depends not on the principal verb *data est*, but on an unexpressed idea, as in § 17.

**quas easdem**: 'while', cf. § 62.

§ 129. **ad eum finem**: of time, as in *Verr.* I 16 *ea mansit usque ad eum finem dum judices rejecti sunt*, ib. v 75, *Cael.* 11.

**aqua et sustinentur et fetum fundunt**: 'a kind of zeugma for *et in ea f. f.*' Sch.

Ch. LII. **nascuntur ipsa**: by a natural confusion C. here predicates of the *ova* what is properly true of the young. For the fact see Plut. *Sol. An.* p. 982, Aelian *V. H.* I 6, Herod. II 68. In Arist. however (*H. A.* v 33) and Plin. *H. N.* IX 10, x 62 tortoises and crocodiles are said to incubate.

**excuderunt**: the common word for hatching in the *Scriptores R. R.*, e.g. *excusis anserculis* Col. VIII 14 § 7; properly it refers to the breaking of the shell by the parent bird. Compare ἐκλέπειν Herod. II 68, ἐκκολάπτειν Arist. *Hist. Anim.* VI 3 § 16.

C d (7) δ. *Adaptations of external nature to meet the wants of plants and animals.* §§ 130—132.

§ 130. **accedit etiam**: I see no reason for omitting *etiam*. It is frequently joined with *accedit* in Cic. e.g. *Senect.* 16, *Harusp. Resp.* 6, 1 *Verr.* 29, *Balb.* 65; and the recurrence of the word with *hominum* is a very natural carelessness.

**rerum quas terra gignit**: a striking example of this awkward periphrasis, on which see I 4.

**sine procuratione hominum**: cf. below § 158 (where we have also an ex. of the Subjective Gen. *sine cultu hominum*) and Lucr. v 860.

**ad cultum hominum atque abundantiam**: hendiadys 'for profitable cultivation'.

**tota aestate**: it begins to rise in June and is at its height in September, see Rawlinson on Herod. II 19. For the Abl. of duration see *totis noctibus* 105. **oppletam**: 'soaked'.

**Euphrates**: so Herod. I 193 'Babylonia is like Egypt intersected with canals for the purpose of irrigation: the river does not overflow of its own accord, but is spread over the land by the hand or by machinery. When thus watered, the soil is incredibly fruitful'; Plin. *N. H.* v 26 *increscit autem et ipse Nili modo statis diebus paulum diffusus, ac Mesopotamiam inundat.* When Herodotus says it does not overflow of itself, he must refer to the artificial lakes and canals in which the water was stored up, for the volume of water is swollen regularly by the melting of snows, like the Nile.

**quot annis**: as there is no parallel to *quot annos* (reading of the MSS) before Apuleius *Met.* XI 22 *sedulum quot dies obibam sacrorum ministerium*, I have followed Lamb. in reading the Abl. Davies cites *Tusc.* I 119 *quot dies erimus in Tusculano*, but that is the ordinary Acc. of Duration; here the inundation is not regarded as lasting through the year, but merely as recurring every year. No doubt the eye of the scribe ran on to the following accusatives.

**quasi novos agros**: Strabo (XV 1 § 16) says this generally of all rivers *τούτων ὡς ἂν γεννήματα ὑπάρχειν τὰ πεδία, καὶ εὖ λέγεσθαι ὅτι τούτων ἐστὶ τὰ πεδία*: so the Delta of the Nile was called *δῶρον τοῦ ποταμοῦ*, Herod. II 5.

**Indus**: Arrian *Anab.* v 4 and 6 says it is the greatest river in Europe and Asia except the Ganges, which surpasses all even the Nile. As a matter of fact the Indus is a good deal longer than the Ganges, but not nearly the length of the Volga or of some of the Chinese and Siberian rivers, not to mention the Nile.

**laetificat**: similarly used by Pliny XVII 8 *apud Homerum regius senex agrum ita (fimo) suis manibus laetificans reperitur.* Hence *laetamen* used for manure by Plin. XVIII 16; see above § 102.

**mitigat**: softens hard soil, cf. Hor. *Ep.* II 2 *ferro mitigat agrum*, and below § 151 *mitigat cibum.*

**frumenti similium**: Strabo (XV 1 § 22) mentions a *σῖτον αὐτοφυῆ πυρῷ παραπλήσιον* as growing in India, and Theophrastus (*H. P.* IV 5) says that India bears *καὶ σπέρματα ἴδια τὰ μὲν τοῖς χεδροποῖς ὅμοια τὰ δὲ τοῖς πυροῖς καὶ ταῖς κριθαῖς*, but neither of them connects this with the overflowing of the Indus.

Ch. LIII § 131. **Etesias**: the Nom. S. *Etesias* is used by Plin. *N. H.* XVIII 34: they may be described as trade winds blowing periodically (*ἔτος*) from N.W., cf. Seneca *N. Q.* v 10 *a solstitio illis initium est ultraque ortum Caniculae non valent. Sic ille Etesiarum flatus aestatem frangit et a men-*

*sium ferventissimorum gravitate defendit;* ib. c. 18 *Etesiae non patiuntur apud nos nubes consistere: iidem totam Indiam et Aethiopiam continuis per id tempus aquis irrigant;* Lucr. v 742 *etesia flabra Aquilonum;* Caesar (*B. C.* III 107) speaks of being detained in Alexandria by the Etesians *qui navigantibus Alexandria sunt adversissimi venti;* cf. Herod. II 20, Cic. *Fam.* II 15, *Att.* VI 7. The word is also used for periodical winds blowing from other quarters Gell. II 22, Diod. I 39, Arist. *Meteor.* II 6, Ideler *Meteorol.* p. 114 foll.

§ 132. **[et tamen multa dicuntur]**: I agree with Ba. and Mu. in regarding this as an interpolation due to a reader whose patience was becoming exhausted by C.'s list of wonders. It is weak in itself and it breaks the connexion between *praetereunda* and *enumerari enim.*

**opportunitates**: 'conveniences', explained above in regard to agriculture § 130.

**aestus maritimi**: see § 19 n. The reading *multum* of the MSS is probably to be explained by a dittographia of the final syllables of *maritumi*, *mitum* getting corrupted into *multum.* *Mutuo*, read by Sch. with one inferior MS, has no meaning here: it cannot be used for *vicissim.* The best of the other emendations is that of Lambinus, see crit. nn.

**vestiti**: 'clothed and wooded', cf. §§ 98, 161.

**medicamentorum**: Plin. *N. H.* XXIV 1 *ne silvae quidem horridiorque naturae facies medicinis carent, sacra illa parente rerum omnium nusquam non remedia disponente homini.*

**artes denique**: I think this reading may be defended on the ground that *artes repertae sunt docente natura, Leg.* I 26 (compare the whole passage and Bake's n.), and that *cum omni utilitate, quam di hominibus dederunt, ars aliqua conjuncta est, per quam illa utilitas percipi possit, Div.* I 116; the *medicamenta* just mentioned would remind him of the remedial arts mentioned above § 126, which the animals had received from nature. If a change were needed I should prefer *utilitates* read by Mü. after H. A. Koch *Progr. Port.* 1868 p. 39, to the *res* of Moser, or *dotes* of Sch. (*Opusc.* III 339, Fleck. *Jahrb.* 1875 p. 692).

**victum—vitam**: constantly found in conjunction, see Lexx. and Nizol.

**tribuens**: 'assigning'. **undique**: logical, 'from all quarters'.

C d (8). *The hand of Providence is most plainly visible in man.* §§ 133—153 (C. appears to confound this section with the 4th general division of his subject, treated of in §§ 154—167).

§ 133. **sed quaeret quispiam**: I have followed the reading of Cod. Glog. here, rather than that of C. (with Mü.) or of Cod. Reg. with Sch. and Ba., because the *sin* of MSS would more naturally spring from an original *sed* than from *hic;* and the Subj. (of Cod. Reg.) is a far less usual construction than the Ind. of the MSS, see Roby *Gr.* vol. II p. ci.

**at id quidem absurdum**: *Tusc.* I 61 *absurdum id quidem.*

**mutorum**: so I read with Dav. and Sch. for *mutarum* of MSS. The neuter is the more general expression and therefore better suited for this place; but it would naturally be altered by scribes to make it agree with *bestiarum*. Cf. *Verr.* v 171 *omnia muta atque inanima* (including not only *bestias* but *saxa*), Juv. xv 143 with Mayor's n. For the argument cf. below § 157.

**tantum laborasse**: this is merely a rhetorical expression and not the Stoical belief, cf. I 22 n., III 92 *dicere soletis nihil esse quod deus efficere non possit, et quidem sine labore ullo.*

**dixerit**: Fut. Perf. Subj. like *illos merito quis dixerit miseros* Sen. *Dial.* I 4 § 6, cited by Roby *Gr.* § 1540.

**di et homines**: not men alone, as is more loosely stated in §§ 37 and 154, where see n. and cf. Sen. *Ira* II 27 *non enim nos causa mundo sumus hiemem aestatemque referendi: suas ista leges habent quibus divina exercentur. Nimis nos suspicimus, si digni nobis videmur propter quos tanta moveantur; Benef.* VI 20 foll. The Gods alluded to are the heavenly bodies and all the various manifestations of the mundane Deity, cf. above § 59 foll., and Varro ap. Aug. *C. D.* VII 6.

**ratio est quae praestet**: 'it is reason that (not 'which') surpasses all'; on the Subj. see *Fin.* I 43 *sapientia est una quae pellat*, where Madv. says '*conjunctivus potestatem rei, non ipsam rem directo significat*'.

**quaeque in eo sint**: I think the edd. right in omitting *mundo* after *eo;* as also in omitting *cognoscunt* § 145 and perhaps *diligunt* § 165: it is not wanted for clearness, as in the passages cited by Allen.

C d (8). *a. in the provision made for the support of life by means of air and food.* §§ 134—138.

In entering on the anatomical section I must warn the reader against expecting any assistance from two books which he might be tempted to consult, *Cicero Medicus* by Birkholtz 1806, and *Cicéron Médecin* by Menière 1862.

Ch. LIV § 134. **cibo potione spiritu**: cf. Arist. *de Respir.* c. 11 ἐπεὶ πρὸς μὲν τὸ εἶναι τροφῆς δεῖται τῶν ζῴων ἕκαστον, πρὸς δὲ τὴν σωτηρίαν τῆς καταψύξεως, τῷ αὐτῷ ὀργάνῳ χρῆται πρὸς ἄμφω ταῦτα ἡ φύσις. **teneatur**: 'depends upon', cf. § 31 *tenetur calore.*

**adjunctis naribus spiritu augetur**: 'the mouth receives abundant supplies of breath through the assistance of the nose'. Cf. Lucr. v 722 (*lunae pars*) *ignibus aucta*, III 630 *animas sensibus auctas.*

**dentibus in ore constrictis**: 'by the compression of the teeth'. Most MSS have *constructis* which I think always implies something of 'piling up'. I have followed V, which suits well with the following verbs *manditur* &c. The clause must be considered to continue the description of the mouth, not to treat of the teeth as a separate subject, in which case *constrictis* would be brought in too abruptly, and I should be inclined to read *constitutis* with some inferior MSS.

**ab iis**: the latest edd. treat these words as an interpolation. It seems to me more difficult to explain their insertion, if they did not form part of the original text, than to justify their use. If a general word, such as *constitutis* referring to the first creation of man, had preceded, some such phrase as this would have been required with the Passive verbs following; but even when a word of particular application like *constrictis* appears in the Abl. Abs. its subject may be repeated with a different government afterwards, see Sch. *Opusc.* III 373, who cites among other exx. Caes. *B. G.* III 14 *turribus excitatis tamen has altitudo puppium superabat*, instead of *turres excitatas*. It is more remarkable to find the Abl. of the Agent, not of the Instrument, used in regard to the teeth, but this sort of personification may be paralleled by *a lingua* in the next sentence, and by § 139 *nervos a quibus artus continentur*, § 144 *auditus a quo cum sonus est exceptus*. Sch. would transpose *ab iis* before *atque*, so as to connect them with *manditur*; but the reading *constrictis* sufficiently explains the action of *manditur*, and I think they come in more naturally introducing *extenuatur* &c. as a sort of second thought.

**extenuatur**: cf. Plin. XVIII 43 *in pulverem extenuari*.

**eorum adversi [acuti]**: I think *acuti* should either be expelled as a gloss or be altered into *acuto*. The double epithet would imply that some front teeth were not sharp. They are called *πρόσθιοι* by Arist. *H. A.* II 1 § 50, and *Part. An.* III 1 *ὁ δ' ἄνθρωπος ἔχει τοὺς μὲν προσθίους ὀξεῖς ἵνα διαιρῶσι, τοὺς δὲ γομφίους πλατεῖς ἵνα λεαίνωσιν*, *primores* by Plin. *N. H.* VII 16; cf. Cels. VIII 1 *quaterni primi, quia secant, τομεῖς a Graecis nominantur*.

**genuini**: (*gena*, *γένυς*, 'chin'), called also *maxillares* and *molares*. Cf. Xen. *Mem.* I 4 § 6 *τοὺς μὲν πρόσθεν ὀδόντας πᾶσι ζῴοις οἵους τέμνειν εἶναι, τοὺς δὲ γομφίους οἵους παρὰ τούτων δεξαμένους λεαίνειν*. **confectio**: 'mastication'.

§ 135. **stomachus**: here used like *στόμαχος*, which from Homer (*Il.* III 292 &c.) downwards means the gullet, cf. Ar. *H. A.* I 12 *αὐχὴν τὸ μεταξὺ προσώπου καὶ θώρακος· καὶ τούτου τὸ μὲν πρόσθιον μέρος λάρυγξ, τὸ δ' ὀπίσθιον στόμαχος*, ib. 16 *ὁ δὲ στόμαχος ἤρτηται μὲν ἄνωθεν ἀπὸ τοῦ στόματος ἐχόμενος τῆς ἀρτηρίας* (the trachea), *τελευτᾷ δὲ διὰ τοῦ διαζώματος* (the diaphragm) *εἰς τὴν κοιλίαν*, i.e. it is the oesophagus or alimentary canal. Hippocrates often uses it for the neck or upper portion of any organ: in later times, as by Meletius *Nat. Hom.* c. 18, it is used for the stomach in our sense (*ἡ ἄνω κοιλία*) as distinguished from the oesophagus on the one hand, and the intestines (*ἡ κάτω κοιλία*) on the other. Cf. Theophilus *Corp. Hum.* II 2 with Greenhill's note.

**tonsillas**: apparently so called from impeding the passage of food, *tonsilla* being used for the stake to which a boat was fastened, see Festus . v. In Greek they were known as *παρίσθμια* or, when swollen, as *ἀντιάδες*.

**atque agitatione**: I omit *is* after *atque* with Kayser and Forchhammer,

thinking that it was a marginal correction of *oris* for *ore is* above, and has been wrongly inserted here. Cf. for similar errors *defectibus* § 49.

**delapsum**: so I venture to read for *depulsum*, which it is impossible to believe that Cic. wrote with *depellit* afterwards. The order of the words is curious, the Ablatives *agitatione et motu* being placed outside the clause to which they belong.

**quasi detrusum**: why *quasi?* the word is used in its literal sense. Is it to denote that C. was not quite satisfied with it as a translation of some Greek word? **depellit**: so § 138 *reliquiae depellantur; Div.* I 57 (of fowls) *depulso de pectore et in omne corpus diviso et mitificato cibo.*

**ipsius autem**: the action of the oesophagus is contrasted with that of the tongue.

§ 136. **aspera arteria**: *τραχεῖα ἀρτηρία* 'the windpipe'; called 'rough', not because it is 'rough in the interior' (L. and S. s. v. *arteria*), for Arist. (*Part. An.* III 3) assigns, as a reason for its being composed *ἐκ χονδρώδους σώματος*, that *δεῖ τὸ ψοφήσειν μᾶλλον λεῖον εἶναι καὶ στερεότητα ἔχειν*; but because 'it is strengthened by a series of from 16 to 20 horizontal cartilaginous rings', which can be felt in the throat, and is thus distinguished from the smooth tube which constitutes a common artery. Erasistratus (fl. 280 B.C.) is said to have been the first to use the distinctive epithet. The word *ἀρτηρία* (connected with *ἀείρω, ἀορτή*) properly means 'suited for suspending', and is fitly used for that from which the lungs and other vital parts are suspended, and by which they are held up when the animal is opened after death: hence Sophocles calls it *πνεύμονος ἀρτηρίας Trach.* 1054 'suspenders of the lungs' (the plural is used for the two bronchial tubes). In like manner the tube or cord from which the heart is suspended is called *ἀορτή*, cf. Arist. *H. A.* I 16 *ἐξήρτηται (τὸ μεσεντέριον) ἐκ τῆς μεγάλης φλεβὸς καὶ τῆς ἀορτῆς*, &c. In Aristotle's genuine writings we find *ἀρτηρία* used only of the windpipe, but by later writers it is also employed (sometimes with the distinctive epithet *λεία*) for the artery in our sense. This extension of meaning was probably due to the idea that the artery was an air-tube like the windpipe, see below § 138 *spiritus per arterias (diffunditur)*; whence some derived the name from *ἀήρ* and *τηρεῖν* (Theophilus *Corp. Hum.* ed. Greenhill pp. 296, 297 n.). For the subject matter we may compare Gell. XVII 11 § 2 giving the doctrine of Erasistratus *duas esse quasi canaliculas quasdam vel fistulas, easque ab oris faucibus proficisci deorsum, per earumque alteram deduci delabique in stomachum esculenta omnia et potulenta ex eoque deferri in ventriculum, quae Graece appellatur ἡ κάτω κοιλία*...§ 3 *Per alteram autem fistulam, quae Graece nominatur τραχεῖα ἀρτηρία, spiritum a summo ore in pulmonem atque inde rursum in os et in nares commeare;* Lactant. *Opif.* c. 11 *gurgulio constat ex ossibus flexuosis ac mollibus, quasi ex annulis in cicutae modum invicem compactis.*

**ostium**: 'orifice'. **supra quam**: Lact. l. c. more correctly says *superior ab ore ad ventrem, inferior a naribus ad pulmonem.* For constr. cf. Varro *R. R.* I 41 *in ea (vite) paulo infra quam insitum est incidunt.*

**pertineat ad**: 'reaches to', so often in § 137.

**operculo**: cf. Arist. *Respir.* c. 11 τοῖς τετράποσι καὶ ἐναίμοις ἔχει ἡ ἀρτηρία οἷον πῶμα τὴν ἐπιγλωττίδα, and Plin. XI 66.

**alvi natura**: for the periphrasis cf. *natura animi* I 23, *caloris naturam* II 24, so in Plato *Tim.* 45 τὴν τῶν βλεφάρων φύσιν, 74 τὴν τῶν νεύρων φύσιν, *Phaedr.* 44 ἡ τοῦ πτεροῦ φύσις, Arist. *Part. An.* III 1 ἡ τῶν ὀδόντων φύσις. The word *alvus* is used here for *venter* or *alvus superior* of Cato *R. R.* 156, from which it is distinguished by Pliny *N. H.* XI 79; but it has the same force in Lactant. *Opif.* c. 11 *ubi maceratos ex se cibos alvus emiserit, paullatim per illos intestinorum anfractus extruduntur.*

**pulmones autem et cor extrinsecus spiritum addant**: I read *addant* instead of *ducant* (read by the editors with three of Orelli's MSS) because the latter has no direct reference to *alvus*, the principal subject of the sentence; whereas the reason of the clause is to show how *alvus* gains the *spiritus* spoken of below. Also it seems to me easier to explain *adducant* in Orelli's PV, if we suppose *ducant*, the ordinary verb with *spiritum*, to have been written by mistake, and to have been corrected by the superscription of *ad*. For exx. of errors arising from such corrections in the archetype, see above § 100 n. on *saxa nativis*, and others mentioned by Mü. in Fleck. *Jahrb.* 1864 p. 127 foll. The mention of *cor* is explained by the ancient belief that it was the function of the left ventricle of the heart to supply the arteries with air, see below § 138.

**constat e nervis**: *nervus*, like the Gr. νεῦρον (which properly means 'a string', hence νευρόσπαστον 'a puppet') is ordinarily used in earlier writers for sinew, tendon, ligature; but it included also the white tissues of the body generally, e.g. the nerves proper, some of which were known to Aristotle under the name of πόροι (*H. A.* I 16), though he wrongly asserted that they centre in the heart and not in the brain (see Sprengel *Gesch. d. Arzeneikunde* I 457[3]). Herophilus of Alexandria (fl. B.C. 300) gave a full account of the nerves, but even he did not clearly distinguish them from the tendons (see Sprengel l. c. p. 534); Galen (b. 130 A.D.) was the first to discriminate the three meanings which had been confused under the word νεῦρον, and to confine it to its present use, see *Plac. Hipp. et Plat.* p. 204 K. τρία γάρ ἐστιν ὄργανα παραπλήσια μὲν ἀλλήλοις τὴν μορφὴν τοῦ σώματος, οὐκ ὀλίγον δὲ ἐνεργείαις τε καὶ χρείαις διαλλάττοντα· προσαγορεύεται δὲ τὸ μὲν νεῦρον, τὸ δὲ σύνδεσμος, τὸ δὲ τένων. τὸ μὲν δὴ νεῦρον ἐξ ἐγκεφάλου πάντως ἢ νωτιαίου πέφυκεν, αἴσθησιν ἢ κίνησιν ἢ τὸ συναμφότερον οἷς ἂν ἐμφύηται παράγον· ὁ σύνδεσμος δὲ ἀναίσθητος μέν ἐστιν, ἡ χρεία δὲ αὐτοῦ κατὰ τοὔνομα· λοιπὸς δὲ ὁ τένων πέρας ἐστὶ νευρῶδες μυὸς ἐκ συνδέσμου καὶ νεύρου γεννώμενος, *Us. Part.* I 16, 17, V 9, XV 1, 6. From this old meaning arose the metaphorical use of *nervus*, *nervosus* for 'vigor' 'vigorous', and our English 'a nervous style', 'hardy as the Nemean lion's nerve'. For the fact see Mivart *Elem. Anat.* p. 446 'the intestines like the stomach are formed of muscular fibres with a mucous lining'; hence the peristaltic action of the bowels described below; Arist. *Part. An.* III 3 § 4 ἔστι δ' ὁ μὲν οἰσοφάγος

*σαρκώδης, ἔχων νευρώδη τάσιν· νευρώδης μέν, ὅπως ἔχῃ διάτασιν εἰσιούσης τῆς τροφῆς*, so Celsus IV 1 l. 14 (using the word *stomachus* in the sense of C.'s *alvus*) says *stomachus qui intestinorum principium est, nervosus a septima spinae vertebra incipit.*

**multiplex et tortuosa**: describing the smaller intestines. The same words are found combined in a metaphorical sense *Lael.* 65.

**arcetque et continet**: conjoined in *R. P.* VI 17 *orbis caelestis arcens et continens ceteros*, the former word brings into greater prominence the idea of a restraining and limiting force from the outside.

**calore quem multum habet**: cf. above § 24. Theophilus *Corp. Hum.* II 4 says that 'since the stomach needed abundant heat, the Creator placed near it the liver' *ὥσπερ λέβητα διάπυρον*. On the attraction of the epithet into the relative clause, see Draeg. § 474.

**et terendo cibo**: Madv. omitted *cibo;* but, clumsy as the phrase is, we could hardly dispense with the object here, and the gerund by itself would come in a little awkwardly between the substantives *calore* and *spiritu.* Heind. reads *ex terendo*, 'heat arising from the crushing of food'; but *calor* and *tritura* are two distinct causes of digestion, which were opposed to one another by rival medical schools, as we learn from Celsus I *prooem.*, *duce alii Erasistrato, teri cibum in ventre contendunt;...alii credunt Hippocrati per calorem cibos concoqui.*

Ch. LV. **raritas quaedam—mollitudo**: 'of a loose and spongy consistency'. *Quaedam* is added, because *raritas* was an unusual word, perhaps first employed by C.: even *rarus* is generally used of distinct objects rather than of one loosely constituted whole. The word *spongiosus* is used by Celsus IV 1 *pulmo spongiosus ideoque spiritus capax*, instead of C.'s periphrasis; cf. Plato *Tim.* 70 the lung has inside *σήραγγας* (cavities) *οἷον σπόγγου κατατετρημένας*, Arist. *Part. An.* III 6 *σομφὸς ὁ πλεύμων καὶ ὅμοιος ἀφρῷ.*

**aspirantes**: properly used of blowing upon some external object, as above § 83 *aspiratio aeris* 'ventilation', here absolute, of an expiration, which would be more properly expressed by a reference to the *terminus a quo*, but the word *exspiro* is not found in Caesar or Cic.: perhaps its later connotation unfitted it for use in the literal sense.

**tum in respiratu**: Lamb.'s emend. for *tum in re spiritu.* The word *respiro* is used for the general process of breathing, like *ἀναπνεῖν*, but also specially for the return of breath in either direction; as just above we had *respiret et reddat* opposed to *animam quae ducta est spiritu*, and again below § 138 *redditur respirando;* but here (as in Juv. XIV 28 *ut non ter decies respiret*) of drawing in breath, in response to the outgoing breath of *aspirantes.* So *ἀναπνοή* is opposed to *ἐκπνοή* in Plato *Tim.* 79 E, Arist. *Part. An.* III 3. The corruption of the MSS was hardly to be avoided, when once *re* had got separated from the rest of the word, not to mention that *respiratus* is very rare, apparently only found elsewhere in Apuleius. Madv.'s emend. *intrante spiritu* is unsatisfactory, because it represents the organ as passively influenced by the breath coming in of itself. The

reading of some MSS *tum se spiritu* is a later correction, and though *spiritus* is often used for inhalation, yet it is unsuitable here where a distinctive word is needed.

**cibus animalis—animantes**: 'that aerial nutriment which is the chief support of animal life', cf. Hippoc. *de Flat.* 4 'the body is sustained by three kinds of nutriment σῖτα ποτὰ πνεύματα, of which the last is by far the most important'. Arist. denies this (*Resp.* 6) ἀλλὰ μὴν οὐδὲ τροφῆς γε χάριν ὑποληπτέον γίνεσθαι τὴν ἀναπνοὴν ὡς τρεφομένου τῷ πνεύματι τοῦ ἐντὸς πυρός...μᾶλλον γὰρ ἐκ τῆς τροφῆς (ordinary food) τοῦτο γινόμενον ὁρῶμεν: its only use is to cool the heart. Galen (*Us. Part.* VII 9) on the other hand considers that the chief function of respiration is to keep up the vital heat by constant supplies of fresh air, and 2ndly to feed the vital spirit (τὸ ψυχικὸν πνεῦμα). The word *cibus* is used below III 37 of the exhalations on which the stars feed, and we find the metaphorical *cibus humanitatis Fin.* V 54.

§ 137. Cicero's account of the process of digestion is very incorrect. The following is a summary of what is said in Huxley's *Physiology* on the subject. The food when it has passed into the stomach is changed by continual rolling about with constant additions of gastric juice, into a fluid called *chyme*, of which a considerable portion is absorbed through the walls of the vessels of the stomach into the current of the blood, which is rushing through the gastric veins to the *vena portae*. The remainder of the *chyme* passes into the *duodenum*, where it is mixed with bile and pancreatic juice and becomes *chyle*. In its passage through the smaller intestines the greater portion of this is again carried off through the capillaries into the blood vessels: the remainder is absorbed by the lacteal vessels, and conveyed through these to the mesenteric glands, and thence to the thoracic duct, where it is compounded with lymph. It is then carried to the subclavian vein, which sends the blood into the right side of the heart. From thence it is conveyed by the pulmonary artery to the lungs, where it is converted into arterial blood. See diagrams in Huxley or elsewhere.

**a medio intestino**: a mistranslation of the Gr. μεσεντέριον, which is not properly an intestine at all, but a membrane interposed between the intestines (ὑπὲρ τῶν ἐντέρων, Arist. says *H. A.* I 16), 'a fold of the peritoneum which suspends the small intestines to the back walls of the abdomen', Huxley l. c. p. 36. It is however classed among the intestines by Macrob. *S. Sc.* I 6 § 77 *intestina principalia tria sunt, unum dissaeptum vocatur* (the diaphragm), *alterum medium, Graeci μεσεντέριον vocant*, &c.

**portas jecoris**: the 'portal fissure' where the *vena portae*, the hepatic artery and the great nerves enter the liver. Galen (*Us. Part.* IV 1) tells us that after the stomach has cleared away the grosser particles, it sends the chyle to the liver (κοινὸν ὅλου τοῦ ζῴου πέψεως χωρίον), the entrance to which, being divided into many narrow passages, has received the name πύλαι, originally given by ἀνήρ τις παλαιὸς δεινός, οἶμαι, περὶ τὴν φύσιν, and approved by Hippocrates and the sect of the Asclepiads. (It is used

by Eurip. *El.* 828, Plato *Tim.* 71 c, Arist. *H. A.* I 71, VII 8.) In the liver the chyle is further purified by depositing certain secretions; that which is light and yellow is drawn off to the gall bladder, that which is heavy and thick is carried to the spleen by a vein connecting it with the *portae.* The blood thus purified is then passed into the *vena cava* where it gets rid of its superfluous watery particles through the kidneys adjoining. Thus the liver is *τὸ πρῶτον τῆς αἱματώσεως ὄργανον* (c. 12). The numerous veins which convey the chyle to the liver all unite into a single trunk at the *portae* and then again subdivide into a vast number of small veins in order to imbibe the substance of the liver and so thoroughly clarify the blood (see Ideler *Phys. Min.* vol. II p. 6). This was the generally accepted theory among the ancients, as we may see from Theodoret *Prov.* p. 517 Schulze, 'the liver having received the chyle from the stomach proceeds to pass it through further strainers, the dregs being drawn off by the spleen, that which is overdone (*τὸ πέρα τοῦ μέτρου πεφθέν*) being drawn off into the gall bladder, and that which is too thin into the receptacle for the watery secretions. When the chyle has in this way been turned into pure blood it enters into the *vena cava* and is carried by it to the heart'.

**quae pertinent ad jecur**: but these *viae* ('channels', used in the same general way as *πόροι* by Arist.) do not really extend to the liver; they unite, as before said, in the *vena portae* and then divide again.

**aliae pertinentes**: the *terminus ad quem* is required with the word *pertinentes,* and edd. are probably right in inserting *alio* with Heind. but, in the general doubtfulness as to what C.'s ideas on the subject were, it is difficult to speak with confidence as to the particular reading required. We should have expected to hear something of the distribution of the chyle through the liver itself, but are only told of its arrival at the *portae* and then of its being carried off elsewhere. Comparing the account taken from Galen above, we might suppose the *viae* to signify certain ducts by which the secretions are carried to the gall bladder and the spleen; but C.'s words seem to imply that he is still following the course of the main stream of the chyle, which he apparently imagines to visit successively the liver, the spleen and the kidneys, depositing in each the ingredient which belongs to it, yellow and black bile and *serum,* the principle of urine (see quotations from Galen in next note), and thence returning to the *portae* and discharging itself into the *vena cava.* The true account seems to be as follows: the blood in the *vena portae* receives an accession from the spleen through the splenic vein, but does not part with any of its own ingredients either to the spleen or to the kidneys until it has passed through the heart and returned as arterial blood, from which the secretions are made. In its passage through the liver it secretes bile and extracts *glucose.* The liver itself is not an excretory organ.

**bilis iique umores qui e renibus profunduntur**: cf. Galen *Us. Part.* V 10 *τὸ δὲ ἧπαρ ὑπὸ τῶν τεττάρων ὀργάνων ἐκκαθαίρεται, δυοῖν μὲν νεφροῖν, τρίτου δὲ σπληνός, τετάρτου δὲ τῆς ἐπικειμένης αὐτῷ κύστεως* (the bile duct), ib.

c. 6 ὀλίγιστον μὲν γὰρ τὸ μελαγχολικὸν περίττωμα, πλέον δ' αὐτοῦ τὸ χολῶδες, πολλαπλάσιον δ' ἀμφοῖν τὸ ὑδατῶδες, ib. IV 13 οἱ χοληδόχοι πόροι τὴν χολήν, οἱ νεφροὶ τὸ οὖρον ἐπισπῶνται ib. *Hipp. et Plat.* p. 536 K. Again speaking of the chyle, he says that, after its arrival in the liver, it throws off two secretions, yellow and black bile, and ascends, having now attained its ruddy hue, to the upper part of the liver, *Us. Part.* IV 4.

**ad easdemque portas jecoris confluunt**: this, taken by itself, would agree with Huxley's account of the 'portal system' p. 56, 'the blood is distributed throughout the liver from the *vena portae*, and thence it is conveyed by small veins which unite into a large trunk (the hepatic vein) opening into the inferior *vena cava* near the portal fissure'.

**ejus**: *sanguinis*, hence Hippocrates called the liver ῥίζωσις φλεβῶν (Galen *Hipp. et Plat.* p. 200 K.).

**vena cava**: φλὲψ κοιλή, called ἡ μεγάλη by Arist., the great trunk vein, divided into *superior* and *inferior* as it runs into the heart from above or from below. Hippocrates ap. Gal. *Hipp. et Plat.* p. 532 K. compares it to the trunk of a tree which has its root in the liver and intestines.

**confectus jam coctusque**: Madv. *Fin.* II 64 proposed *concoctus*, but Sch. (*Opusc.* III 735) proved the correctness of the old reading by many exx. as above § 136 *cocta atque confecta*, Cels. IV 5 *qui nihil aliud concoquere possunt, bubulam coquunt*, Plin. *N. H.* XXIX 1. He remarks that it is not uncommon with C. to omit the preposition in the second of a pair of compounds into which the same preposition enters, cf. Madv. *Fin.* III 36.

**a corde distribuitur**: The heart was the origin of the veins and blood according to Plato *Tim.* 70 ἅμμα τῶν φλεβῶν καὶ πηγὴν τοῦ περιφερομένου κατὰ πάντα τὰ μέλη σφοδρῶς αἵματος, and Arist. *Part. An.* II 9 ἀρχὴ τῶν φλεβῶν ἡ καρδία, ib. II 1 § 22 ἔχει ἐν αὑτῇ τὴν δύναμιν τὴν δημιουργοῦσαν τὸ αἷμα πρώτην. The followers of Hippocrates on the contrary asserted that the blood originated in the liver and was only distributed from the heart. Galen argues in favour of this view *Hipp. et Plat.* p. 531.

§ 138. **illa explicetur fabrica—nam**: so γάρ is used to explain the Demonstrative, Thuc. I 3 δηλοῖ δέ μοι καὶ τόδε τῶν παλαιῶν ἀσθένειαν...πρὸ γὰρ τῶν Τρωικῶν οὐδὲν φαίνεται κοινῇ ἐργασαμένη. [Cf. *Ac.* II 107, *Div.* I 80 cited in Madv. *Gr.* § 439 obs. 2. R.]

**ab spiritu**: 'the mere act of inspiration'; for constr. cf. above § 92 *conflagrare ab ardoribus.*

**contagione**: cf. *Div.* II 58 *fluvium fluxisse sanguine* (*nuntiatum est*)... *sed decoloratio quaedam ex aliqua contagione terrena potest sanguini similis esse.*

**ventriculum cordis**: κοιλίαι τῆς καρδίας of Arist. The functions of the ventricles are thus described by Huxley p. 55: the contraction of the right auricle drives the blood which it contains into the right ventricle; the ventricle then contracts and forces it into the pulmonary artery; from hence it passes into the capillaries of the lungs. After being thus aerated it returns by the four pulmonary veins to the left auricle; and the contraction

of the left auricle drives it into the left ventricle, from whence it passes into the aorta, and is carried through its branches into all parts of the body. The ancients believed that the right ventricle, called by them *αἱματική*, supplied the veins with the blood which it received from the *vena cava;* and that the left ventricle, called *πνευματική*, supplied the arteries with the air received from the lungs (Galen *Us. Part.* VI 7). The course of the air is thus described by Theodoret *Prov.* p. 514 Sch. ὁ πνεύμων διὰ τῆς τραχείας ἀρτηρίας (cf. above § 136) τὸ καθαρὸν ἔξωθεν δέχεται πνεῦμα, διὰ δὲ τῆς λείας (the pulmonary artery) τοῦτο παραπέμπει τῇ εὐωνύμῳ τῆς καρδίας κοιλίᾳ κ.τ.λ.

**spiritus per arterias**: see nn. on §§ 24 and 136. According to Sprengel (I p. 491) Praxagoras (fl. 300 B.C.) first noticed the distinction between arteries and veins; in the genuine works of Arist. both are confounded under the name φλέβες. The reason why it was thought that they contained air was that after death they were found empty while the veins were filled with the returning blood. Galen, while explaining the stronger texture of the arteries as compared with the veins, from the supposed fact that the former were intended as channels for varying amounts of air, while the latter had only to convey a uniform amount of blood, still held that there was a certain proportion of highly rarefied blood in the arteries, and of condensed air in the veins (*Us. Part.* VI 10, and 16). It was not till 1630 A. D. that the true doctrine of the circulation of the blood was discovered by Harvey.

[**utraeque**: 'each set', i.e. *venae* and *arteriae*, cf. *quasque* I 78 n. and *utrorumque* below § 154. R.]

**artificiosi**: cf. § 57 and § 145.

C d (8). *β. in the framework and erect position of the body.* §§ 139, 140.

§ 139. **subjecta corpori—actionem**: 'the bones, which are the framework of the body, are wonderfully connected in a manner which is both fitted to secure stability, and suitable for ending the joints and for allowing of movement and all kinds of bodily action'. We find *aptus* joined with *accommodatus* in *Fin.* IV 46 *initia apta et accommodata ad naturam*, *Off.* I 100, 142. I was disposed to follow Heind. in reading *fingendos* ('for shaping the joints'), but the passage cited below from Celsus seems to show that *finiendos* is right. Mr Roby adds 'properly it ought to be said that the bones are shaped at the ends to make good joints; Cicero says the joints are suited to end the bones'.

**commissuras**: 'articulations' cf. below § 150 *digitorum commissuras* [and Celsus VIII 1 (p. 327 Teub.) *ignorari non oportet plurima ossa in cartilaginem desinere, nullum articulum non sic finiri. Neque enim aut moveri posset, nisi laevi inniteretur, aut cum carne nervisque conjungi, nisi ea media quaedam materia committeret.* From this it would appear that *commissura* must mean the cartilaginous covering of the joint. R.]

**nervos eorumque implicationem**: 'the ramification of the nerves' (including no doubt both tendons and nerves properly so called). For constr. cf. I 29 *imagines earumque circumitus.*

**a quibus continentur**: cf. Draeg. 230 and above § 134 *ab iis extenuatur.* [There is here a special reason for the preposition: *quibus continentur* might mean 'of which they are composed'; *a quibus* is 'by which they are kept in place'. Celsus however l. c. has the simple ablative with this meaning, *nervis et cartilagine continentur.* R.]

**nervi...sicut venae a corde tractae**: for the attraction of the Part. into the gender of the subordinate subject, cf. Brut. 262 *omni ornatu orationis tamquam veste detracta,* Nep. *Them.* 7 *illorum urbem ut propugnaculum oppositum esse barbaris,* Liv. I 21 *castra, non urbem positam in medio crediderant;* and the Gr. use with οὐχ ὥσπερ, as in *Gorg.* 522 πολλὰ ὑμᾶς καὶ κακὰ ὅδε εἴργασται...διψῆν ἀναγκάζων, οὐχ ὥσπερ ἐγὼ...ὑμᾶς εὐώχουν. For the subject matter see Arist. *H. A.* III 5 p. 515 ἡ μὲν ἀρχὴ τῶν νεύρων ἐστὶν ἐκ τῆς καρδίας· καὶ γὰρ ἐν αὐτῇ ἡ καρδία ἔχει νεῦρα ἐν τῇ μεγίστῃ κοιλίᾳ, καὶ ἡ καλουμένη ἀορτὴ νευρώδης ἐστὶ φλέψ, especially its extremities, ἄκοιλα γάρ ἐστι καὶ τάσιν ἔχει τοιαύτην οἵαν περ τὰ νεῦρα ᾗ τελευτᾷ πρὸς τὰς καμπὰς τῶν ὀστῶν, and again a little below πάντα τὰ ὀστᾶ συνδέδεται νεύροις. It is plain that Aristotle here means sinews by νεῦρα, but in *Gen. An.* V 2 we read οἱ πόροι τῶν αἰσθητηρίων ἁπάντων (i.e. the proper nerves) τείνουσι πρὸς τὴν καρδίαν, *Juvent.* c. 3 cited by Trend. *Anim.* p. 397 n. Galen is therefore not 'guilty of error' (as Lewes says *Arist.* p. 168) 'in attributing to Aristotle the absurdity of deriving all the nerves from the heart'. Sprengel I 534 speaks of Herophilus (fl. about 300 B.C.) as the first who derived the nerves from the brain and spinal marrow, and distinguished between nerves of motion and sensation, see above § 128 n. Galen (*Hipp. et Plat.* p. 187 K.) attributes to Hippocrates right views as to the origin of the nerves and severely condemns Arist. and Praxagoras for deserting his opinions. It seems this question was connected with that of the seat of the ἡγεμονικόν, thus in p. 649 Galen states as axiomatic principles (1) ὅπου τῶν νεύρων ἡ ἀρχή, ἐνταῦθα καὶ τὸ τῆς ψυχῆς ἡγεμονικόν, and (2) ἡ ἀρχὴ τῶν νεύρων ἐν τῷ ἐγκεφάλῳ. The Stoics maintained that the heart was the seat of the ἡγεμονικόν (Zeller IV p. 197 foll.).

**in corpus omne ducuntur**: this was denied by Arist. *H. A.* III 5 οὐκ ἔστι συνεχὴς ἡ τῶν νεύρων φύσις ἀπὸ μιᾶς ἀρχῆς ὥσπερ αἱ φλέβες. A general view of the true nervous system is given in Mivart's Anatomy p. 400.

Ch. LVI § 140. **ad hanc providentiam**=*ad haec quae de providentia dixi* Sch.

**a dis**: these words are considered spurious by recent edd. but, I think, they are almost required with *tributae sint.* Keeping these, I retain the MS reading *qui* at the beginning of the following clause and adopt Heind.'s emendation *constituerunt* (corresponding to ἀνέστησαν in the passage cited from Xenophon below) for *constituit.* The abbreviation of the Plur. would

be easily mistaken for the Sing. and the Sing. *deus* might naturally suggest itself to the Christian scribe. Perhaps also the awkward use of *deorum*, instead of *sui*, may have facilitated the corruption.

**primum**: this prepares the way for *sensus autem* below.

**erectos**: cf. Xen. *Mem.* I 4 § 11 *ἐπεὶ οὐκ οἴει φροντίζειν (θεοὺς ἀνθρώπων); οἳ πρῶτον μὲν μόνον τῶν ζῴων ἄνθρωπον ὀρθὸν ἀνέστησαν· ἡ δὲ ὀρθότης καὶ προορᾶν πλεῖον ποιεῖ δύνασθαι καὶ τὰ ὕπερθεν μᾶλλον θεᾶσθαι*, Plat. *Tim.* 90. *πρὸς τὴν ἐν οὐρανῷ ξυγγένειαν ἀπὸ γῆς ἡμᾶς αἴρειν ὡς ὄντας φυτὸν οὐκ ἔγγειον ἀλλ' οὐράνιον*, Arist. *P. A.* IV 10 *(ὁ ἄνθρωπος) ὀρθός ἐστι μόνον τῶν ζῴων διὰ τὸ τὴν φύσιν αὐτοῦ καὶ τὴν οὐσίαν εἶναι θείαν· ἔργον δὲ τοῦ θειοτάτου τὸ νοεῖν καὶ φρονεῖν· τοῦτο δ' οὐ ῥᾴδιον πολλοῦ τοῦ ἄνωθεν ἐπικειμένου σώματος* foll., *ib.* II 10, Cic. *Leg.* I 26 *nam cum ceteras animantes abjecisset ad pastum, solum hominem erexit (natura) ad caelique quasi cognationis domiciliique pristini conspectum excitavit, tum speciem ita formavit oris ut in ea penitus reconditos mores effingeret*, Ov. *Met.* I 85 *os homini sublime dedit caelumque tueri jussit et erectos ad sidera tollere vultus*, Seneca *Ep.* 94 § 56 *(natura) vultus nostros erexit in caelum et quicquid magnificum mirumque fecerat videri a suspicientibus voluit*, Epict. *Diss.* I 6 § 19 *τὸν ἄνθρωπον θεατὴν εἰσήγαγεν αὐτοῦ τε καὶ τῶν ἔργων αὐτοῦ, καὶ οὐ μόνον θεατὴν ἀλλὰ καὶ ἐξηγητὴν αὐτῶν*, Plut. *S. N. V.* p. 550 with Wyttenbach's n., Min. F. c. 17, Lact. VII 5, Mayor on Juv. XV 147, Sen. *Ep.* 65 § 20, *N. Q.* V 15 § 3. Galen on the contrary says (*Us. Part.* III 3) 'those who believe man to have been made erect in order that he might look up to heaven and say *ἀνταυγέω πρὸς Ὄλυμπον ἀταρβήτοισι προσώποις* can never have seen the fish called *uranoscopus*, not to mention various birds, which are much better adapted for looking up than man. The true upward looking, as Plato said, is to fix the mental eye on that which really exists'.

**ut deorum cognitionem capere possent**: so Lact. *Inst.* II 3, III 9 *solus sapientia instructus est (homo) ut religionem solus intellegat: et haec est hominum atque mutorum vel praecipua vel sola distantia*: but this is denied by Celsus, ap. Orig. IV 88 'birds are able to foretell the future, which is a sign that they are dearer to the Gods, *ἐλεφάντων δὲ οὐδὲν εὐορκότερον οὐδὲ πρὸς τὰ θεῖα πιστότερον εἶναι δοκεῖ, πάντως δήπου διότι γνῶσιν αὐτοῦ ἔχουσιν*, ib. 96 *πολλὰ τῶν ζῴων ἀντιποιεῖσθαι θείας ἐννοίας*, 97 *οὐ μόνον σοφώτερα ἀλλὰ καὶ θεοφιλέστερα*, 98 *εὐσεβεστέρους εἶναι τοὺς πελαργοὺς τῶν ἀνθρώπων*.

**sunt enim ex terra**: I explain this by *Tusc.* I 42 *corpora nostra terreno principiorum genere confecta*, not, as Sch., by a reference to *spectatores* following.

C d (8). γ. *Providence shown in the organs of sense.* §§ 140—146.

**nuntii rerum**: cf. *Tusc.* I 46 *quae numquam quinque nuntiis animus cognosceret, nisi is omnium judex solus esset*, and above I 70.

**tamquam in arce**: so Plato (*Tim.* 70 A) speaks of the head as the acropolis of the body, in which the sovereign reason has its seat. On the

other hand Galen (*Hipp. et Plat.* p. 230 K.), arguing against fanciful *a priori* assumptions, 'we are not to assume that the ruling principle must reside in the heart because it is in the centre of the chest, nor ὅτι καθάπερ ἐν ἀκροπόλει τῇ κεφαλῇ δίκην μεγάλου βασιλέως ὁ ἐγκέφαλος ἵδρυται, διὰ τοῦτο ἐξ ἀνάγκης ἡ τῆς ψυχῆς ἀρχὴ κατὰ αὐτόν ἐστι' foll. cf. *Tusc.* I 20.

**tamquam speculatores**: Theodoret elaborates the comparison *Prov.* III p. 525 Sch. ἐπειδὴ ἔδει τῷ φρουράρχῳ νῷ κατασκόπων τά τε πολέμια καὶ τὰ φίλια προορώντων κ.τ.λ.

§ 141. **in sublime**: cf. n. on § 44.

**sursum**: used in the rare sense, of position distinguished from motion, cf. Varro *R. R.* I 6 § 3 *qui colunt sursum magis hieme laborant.*

**potionis judicium magnum earum est**: 'they are greatly concerned in testing foods'. For the combination of the Objective and Subjective Genitives see § 145 *quarum judicium est oculorum,* § 156 *omnium rerum hominum est usus:* for the thought § 146 *aurium est judicium, Orator* 60, 150 *aurium superbum judicium,* 164, *Orat.* III 221 foll. *in ore dominatus est omnis oculorum...quare oculorum est magna moderatio.*

**vicinitatem oris secutae sunt**: 'been placed near', 'drawn to the neighbourhood of the mouth', cf. *Leg.* II 3 *amoenitatem hanc sequor* 'I am attracted to'.

**gustatus**: here used for the organ, below § 158 for the actual taste. The palate was commonly supposed to be the organ of taste, see above § 48; Lactantius on the contrary says (*Opif.* 10) *fallitur quisquis hunc sensum palato inesse arbitratur: lingua est enim qua sapores sentiuntur, nec tamen tota,* but only where it gets thinner towards the sides. Xenophon also makes the tongue the organ *Mem.* I 4. Aristotle goes into further refinements *H. A.* I 11 τὸ αἰσθητικὸν χυμοῦ γλῶττα· ἡ δ' αἴσθησις ἐν τῷ ἄκρῳ, and he distinguishes between the more intellectual pleasure of the connoisseur and the grosser pleasure which the glutton finds in the mere act of swallowing, ἡ μὲν γὰρ γλῶττα τῶν χυμῶν ποιεῖ τὴν αἴσθησιν, τῶν δὲ ἐδεστῶν ἐν τῷ καθόδῳ ἡ ἡδονή, καταπινομένων γὰρ αἰσθάνονται τῶν λιπαρῶν καὶ θερμῶν καὶ τῶν ἄλλων τῶν τοιούτων. Compare the wish of Philoxenus (*Eth. Eud.* III 2) τῶν περὶ τὸ γευστὸν οὐ περὶ πᾶσαν ἡδονὴν ἐπτόηται τὰ θηρία, οὐδ' ὅσων τῷ ἄκρῳ τῆς γλώττης ἡ αἴσθησις, ἀλλ' ὅσων τῷ φάρυγγι· καὶ ἔοικεν ἁφῇ μᾶλλον ἢ γεύσει τὸ πάθος· διὸ οἱ ὀψοφάγοι οὐκ εὔχονται τὴν γλῶτταν ἔχειν μακρὰν ἀλλὰ τὸν φάρυγγα γεράνου, ὥσπερ Φιλόξενος. Pliny seems to have misunderstood this *N. H.* XI 65. Huxley's account of the matter is as follows 'the organ of the sense of taste is the mucous membrane which covers the tongue, especially its back part, and the hinder part of the palate'.

**qui sentire deberet**: I follow the MSS with Allen, translating 'since it was intended to distinguish flavours'. The tense refers to the first creation of man, like *secutae* in the previous sentence and *habebat* above § 123.

**habitat**: cf. Plin. *N. H.* XI 54 *in oculis animus habitat.*

**esculentis**: cf. Scaevola's definition of *penus* ap. Gell. IV 1 § 17 *penus est quod esculentum aut potulentum est.*

**aequabiliter**: uniformly, as opposed to special organs, but not of course to the same degree; so Arist. *P. A.* II 8 the αἰσθητήριον ἁφῆς is the σάρξ itself.

**omnes minimos**: cf. n. on I 67 *omnibus minimis*, *Fin.* V 88 *nec ullo minimo momento*, *Q. Fr.* III 1 § 3 *omnia minima maxima ad Caesarem mitti sciebam.*

**appulsus**: cf. I 24 *solis appulsu*, *Div.* I 64 *deorum appulsu hominis somniare.* I should have expected *possemus* to follow rather than *possimus.*

**quae profluentia taetri essent aliquid habitura**: 'the drains which (lit. that which as it drained away) must otherwise have been somewhat offensive'. Cf. Xen. *Mem.* I 4 § 6 ἐπεὶ τὰ ἀποχωροῦντα δυσχερῆ, ἀποστρέψαι τοὺς τούτων ὀχετοὺς καὶ ἀπενεγκεῖν ᾗ δυνατὸν προσωτάτω ἀπὸ τῶν αἰσθήσεων (οὐ δοκεῖ σοι καὶ τόδε προνοίας ἔργον;)

**amandavit**: 'banished them' cf. *pro Scauro* 42 *Sardi non deducti in Sardiniam sed amandati.* Allen cites Varro *Prom.* (fr. 430 Bücheler) *retrimenta cibi qua exirent per posticum vallem feci.*

Ch. LVII § 142. **sollertiam persequi**: we find *persequor* often used with an accusative expressive of quality in the sense 'to imitate' or 'aim at', e.g. *Orator* 57, 67 *poeta virtutes oratoris persequitur*, ib. 102 ('in the speech *pro Leg. Manil.*') *ornandi copiam persecuti sumus*, *Ac.* II 74 *ironiam alterius persequi*, *Fin.* V 64; here apparently it means 'to carry through', 'to exhibit in detail'.

**quae primum...quas primum**: the first opposition is that of the eye to the other senses (*auditus autem* in § 144), the second that of the transparency to the firmness of the *cornea* (*firmas autem*). That the first opposition is, as I have stated, and not that of *membranis* to *lubricos* (as Sch.), is probable both from the position of *oculos* and from the parallel in § 145. As we have there *primum enim oculi...auriumque item...nariumque item*, so here *primum oculos...auditus autem...similiter nares...gustatus*, cf. Madv. on *Fin.* I 17. On the eye see Galen *Us. Part.* bk. X, Ambros. *Hex.* VI 58 foll., Lact. *Op.* 8.

**ut continerentur**: sc. *oculi* understood from the agent of the Passive *cerni.* The humours and the crystalline lens are kept in their place by the *cornea*, cf. Cels. VII 7 (*oculus*) *summas habet duas tunicas, ex quibus superior a Graecis* κερατοειδής *vocatur*, Plin. *N. H.* XI 54 *tenuibus multisque membranis eos natura composuit, callosis contra frigora caloresque in extimo tunicis, quas subinde purificant lacrimationum salivis, lubricos propter incursantia et mobiles; media eorum cornua fenestravit pupilla;* Serv. ad *Aen.* VI 894 *oculi cornei sunt et duriores ceteris membris; nam frigus non sentiunt, sicut etiam Cicero dixit in libris de Natura Deorum.*

**sed lubricos**: cf. for use of *sed* § 66 *sed Junonem.*

**declinarent**: neut. as in I 69.

**aciesque**: the *que* here has the force of *porro*, as in § 145 *omnisque sensus.* *Acies* 'the point of the eye' is used for *pupula* by Lucr. III 408—414.

**pupula**: from *pupa*=κόρη. Cf. Plat. *Alc.* I p. 133 ἐννενόηκας οὖν ὅτι τοῦ ἐμβλέποντος εἰς τὸν ὀφθαλμὸν τὸ πρόσωπον ἐμφαίνεται ἐν τῇ τοῦ καταντικρὺ ὄψει, ὥσπερ ἐν κατόπτρῳ, ὃ δὴ καὶ κόρην καλοῦμεν, εἴδωλον ὂν τοῦ ἐμβλέποντος;

**mollissimae tactu—aptissime factae sunt**: Heind.'s addition *sunt* seems to me necessary. Even then the sentence is awkward, as well as inharmonious from the recurrence of sounds.

**providit**: sc. *natura*, understood with some difficulty after the intervening clauses, [but assisted by *factae* in the line before. R.].

§ 143. **palpebrae**: cf. Xen. *Mem.* I 4 (Is not this also a sign of providential care) τὸ ἐπεὶ ἀσθενὴς μέν ἐστιν ἡ ὄψις, βλεφάροις αὐτὴν θυρῶσαι, ἃ, ὅταν μὲν αὐτῇ χρῆσθαί τι δέῃ, ἀναπετάννυται, ἐν δὲ τῷ ὕπνῳ συγκλείεται; ὡς δ' ἂν μηδὲ ἄνεμοι βλάπτωσιν, ἠθμὸν βλεφαρίδας (eyelashes) ἐμφῦσαι· ὀφρύσι τε ἀπογεισῶσαι (fr. γεῖσον 'penthouse') τὰ ὑπὲρ τῶν ὀμμάτων, ὡς μηδ' ὁ ἐκ τῆς κεφαλῆς ἱδρὼς κακουργῇ, Arist. *P. A.* II 15 αἱ δ' ὀφρύες καὶ αἱ βλεφαρίδες ἀμφότεραι βοηθείας χάριν εἰσίν, αἱ μὲν ὀφρύες τῶν καταβαινόντων ὑγρῶν, ὅπως ἀποστέγωσιν οἷον ἀπογείσωμα τῶν ἀπὸ τῆς κεφαλῆς ὑγρῶν, αἱ δὲ βλεφαρίδες τῶν πρὸς τὰ ὄμματα προσπιπτόντων ἕνεκεν, οἷον τὰ χαρακώματα (cf. *vallo pilorum*) ποιοῦσί τινες πρὸ τῶν ἐργμάτων.

**vallo**: 'a palisade made by the stocks of young trees with their lateral branches shortened and sharpened at the point so as to form a sort of *chevaux de frise*, usually planted by the Greeks and Romans on the outer edge of the mound of earth (*agger*) thrown up as a rampart round their camps' Rich *Companion* &c.; cf. *Senect.* 51 (the corn) *contra avium morsus munitur vallo aristarum.* Similarly Theodoret (*Prov.* III p. 525 Schulze) compares the eyelashes to δόρατα καὶ βέλη and shortly afterwards to stakes (σκόλοπας), and illustrates their use by the bearded wheat which is protected from the birds by its bristles.

**quibus—quiescerent**: the general sense is as follows, 'the eyelids are guarded with a *chevaux de frise* of hairs, both to repel anything which might impinge upon the eyes when open, and as it were to tuck them in when closed in sleep', but this is expressed with extreme awkwardness. Even assuming with Brieger (*Beiträge zur Kritik d. Cicero*, Posen 1873) that *ut qui* is a corruption arising out of the repetition of the last syllable of *involuti* and the first of *quiescerent*, we have still the ablatives *coniventibus* and *oculis*, where we ought to have the subject of the verb *quiescerent.* Sch. thinks an original *coniventes* has been assimilated to *apertis* by the scribes, and that *oculis* is repeated instead of *iis*, as we have *in terris* § 25; Brieger supposes that the original had *nobis coniventibus*; and, if we are required to make sense of the passage, as it stands, (after omitting *ut qui*) I think we must, at any rate in thought, supply *nobis.*

**tamquam involuti**: 'as though muffled up' (with blankets), cf. *capite involuto.*

**latent utiliter**: the adverb is equivalent to *quod utile est,* cf. § 70 *creduntur stultissime.*

**ab inferiore parte tutantur subjectae**: 'protect it on the under side, lying below it'.

**leniterque eminentes**: this reading is confirmed by Lact. *Opif.* 10 *inferius quoque genarum non indecens tumor in similitudinem collium leniter exsurgens ab omni parte oculos efficit tutiores,* but I see no objection to the *leviter* of MSS, for which we may compare *Div.* I 30 *leviter a summo inflexum bacillum.* The latter adverb would refer to the total height, the former to the gradual slope.

**quasi murus**: cf. Lact. *Opif.* 10 *ex superciliorum confinio nasus exoriens et veluti aequali porrectus jugo utramque aciem et discernit et munit.*

§ 144. **ne quid intrare possit, si simplex pateret**: an abbreviated expression for *possit, quod fieri posset, si:* cf. below § 149 *incredibile est si, Tusc.* I 116 *ne posset agnosci, si esset regio ornatu ; R. P.* II 32 *quod erat in Romulo probatum, Romani vulgare noluerunt, si hoc et alteri facile tribueretur ; Invent.* II 123 *auxilia quaedam in oppidum recepit ne ab hostibus opprimerentur, si foris essent ;* and the singular confusion in Thuc. I 40 *ὅστις μὴ τοῖς δεξαμένοις, εἰ σωφρονοῦσι, πόλεμον ἀντ' εἰρήνης ποιήσει* where the meaning, to be fully stated requires the insertion of *ὅπερ οὐ ποιήσουσι* before *εἰ,* see Arnold's n.

**bestiola**: so Pliny of a spider (*N. H.* XVIII 44), but his generic word for insects is *insecta* (*ἔντομα*), cf. XI 1 *jure omnia insecta appellata ab incisuris, quae nunc cervicum loco, nunc pectorum atque alvi, separant membra.*

**sordibus aurium**: the first use of the wax is to lubricate the inner passages of the ear. The *Eng. Cycl.* however gives the same reason for it as C. Celsus says (VI 7 § 9) that nevertheless animals find their way into the ear, and describes how they may be extracted. Ambrose (*Hex.* VI 62) supposed that the wax made the ear more tenacious of sound.

**visco**: Pliny (*N. H.* XVI 94 § 248) after describing how this is made from the berries of the misletoe, adds *hoc est viscum pennis avium tactu ligandis ; oleo subactum cum libeat insidias moliri.*

**ne adjectae voces laberentur atque errarent**: 'lest the sounds that strike the ear should slip off and be lost'.

**introitus cum flexibus**=*flexuosos,* cf. § 14 *praeter naturam portentis* n.

**his naturis**: 'substances of this nature', viz. horny and sinuous; *Tusc.* I 60 after *umidum, flabile, igneum* we read *his enim in naturis,* see Madv. on *omnium naturarum Fin.* IV 32.

**in fidibus testudine resonatur**: *fides* is a general term for any stringed instrument; that referred to here is the *chelys* or *testudo,* which is a lyre with a sounding board added (*μαγάδιον* Luc. *Dial. Deor.* VII 4, where see Hemsterhuis). It was called *testudo,* because Mercury was fabled to

have made the first instrument out of the shell of a tortoise, and the form of the sounding board was frequently imitated from this, but the material was commonly of horn, cf. notes and Schol. on Arist. *Ran.* 233 (δόνακος) ὃν ὑπολύριον τρέφω, where Eustathius says τὸ παλαιὸν ἀντὶ τοῦ κέρατος ὑπετίθεντο κάλαμον ταῖς λύραις: Schneider *Ecl. Phys.* II p. 175 cites Aristot. *Audib.* 22 τὰ χαλκεῖα καὶ τὰ κέρατα συνηχοῦντα ποιεῖ τοὺς ἀπὸ τῶν ὀργάνων φθόγγους σαφεστέρους, ib. 31, 32, 36 πολὺ δὲ καὶ ἡ ὄπτησις (boiling) τῶν κεράτων συμβάλλεται πρὸς εὐφωνίαν: Vitr. v 3 *organa in aeneis laminis aut corneis echeis ad chordarum sonitus claritatem perficiuntur.* In Tibull. III 4 l. 37 (*lyra*) *fulgens testudine et auro*, it is probable that tortoiseshell was used only for the purpose of ornament. In Arist. *de Anim.* II 8 § 6 we find the ear compared to horn, σημεῖον τοῦ ἀκούειν ἢ μή, τὸ ἠχεῖν αἰεὶ τὸ οὖς ὥσπερ τὸ κέρας. See further on § 149 *nares cornibus similes iis qui ad nervos resonant in cantibus.*

**ex tortuosis locis et inclusis**: Arist. *An.* II 8 ψόφον ποιεῖ ὅσα λεῖα καὶ κοῖλα, ὁ μὲν χαλκός, ὅτι λεῖος· τὰ δὲ κοῖλα τῇ ἀνακλάσει πολλὰς ποιεῖ πληγὰς μετὰ τὴν πρώτην, ἀδυνατοῦντος ἐξελθεῖν τοῦ κινηθέντος. C.'s account agrees with Müller's (*Phys. of the Senses* p. 1276 tr.) as far as the outer ear is concerned, 'which partly reflects and partly condenses the sonorous vibrations and conducts them to the auditory passage; this latter transmits them by the air in the tube immediately to the *membrana tympani*, and prevents them from being dispersed; and lastly the air inclosed in the tube, like all insulated masses of air, increases the intensity of sounds by resonance' (abbreviated). But Cicero has nothing to say as to the inner mechanism of the ear.

§ 145. **umorem**: a more sensible account than that of Lactantius (*Opif.* 10) and Ambrose (*Hex.* VI 63), *ut per ejus* (*nasi*) *cavernas purgamenta cerebri defluant.*

**omnisque sensus hominum antecellit**: on *que* cf. § 142 *aciesque.* Aristotle gives a truer view of the comparative excellence of the senses of different animals (*Anim.* II 9) e.g. of smell, τὴν αἴσθησιν ταύτην οὐκ ἔχομεν ἀκριβῆ ἀλλὰ χείρω πολλῶν ζῴων, φαύλως γὰρ ἄνθρωπος ὀσμᾶται, and again ἐν μὲν ταῖς ἄλλαις (αἰσθήσεσι) λείπεται πολλῶν τῶν ζῴων, κατὰ δὲ τὴν ἀφὴν (including taste) πολλῷ τῶν ἄλλων διαφερόντως ἀκριβοῖ· διὸ καὶ φρονιμώτατόν ἐστι τῶν ζῴων, cf. Plin. *N. H.* X § 191 *ex sensibus ante cetera homini tactus, dein gustatus: reliquis superatur a multis. Aquilae clarius cernunt, vultures sagacius odorantur, liquidius audiunt talpae obrutae terra;* Sen. *Ep.* 76 § 9.

**antecellit**: used with the Dat. by Cic., with the Acc. by Plin. Tac. Seneca. For the Abl. of measure *multo* see Madv. § 270 *obs.* 2.

Ch. LVIII. **quarum judicium est**: cf. above § 141.

**fictis caelatisque formis**: 'in moulded and graven forms'. On *fingo* see I 71 n. It was also used vaguely to include the art of statuary in general (as in *Orat.* III 26 *una fingendi est ars in qua praestantes fuerunt Myro Polyclitus Lysippus*), for which the more exact term was *scalpo* (see below § 150) or *sculpo* (*Acad.* II 101). *Caelatura* is the Greek τορευτική,

on which see Müller's *Anc. Art* § 311. [According to Marquardt *Priv. Alt.* p. 665[2], it included the embossing and beating as well as the engraving of metals, cf. Quintil. II 21 § 9 *caelatura auro argento aere ferro opera efficit: nam sculptura etiam lignum, ebur, marmor, vitrum, gemmas complectitur.* R.]

**cernunt subtilius**: have a finer perception than animals.

**colorum enim et figurarum venustatem**: I read *enim* instead of the *etiam* of MSS. Cicero has just been speaking of painting and statuary as arts which come within the province of the eye, and he now proceeds to explain how this is, because form and colour are the natural objects of sight. With *etiam* we have merely an inane repetition. The corruption would easily arise from the preceding *etiam*. I also omit *tum* after *figurarum* in common with most edd.; Mu., who retains *tum*, supposes some words lost before it. By *ordinem* in reference to colour, we must probably understand the arrangement and gradation of colours, what Pliny calls '*harmoge*', *N. H.* XXXV 11 § 29.

**decentiam**: 'propriety', a translation of εὐπρέπεια (Sch.). It is used with a reference to graceful movements, *Orat.* III 200 *quem ad modum qui utuntur palaestra non solum sibi vitandi aut feriendi rationem esse habendam putant, sed etiam ut cum venustate moveantur; sic verbis quidem ad aptam compositionem et decentiam, sententiis vero ad gravitatem orationis utatur;* cf. *Orator* 228.

**iratum propitium**: on the grouping of adjectives see Draeger § 359, 1 b β.

**timidumque**: I think *que* is intended to close the sentence, and that Ba. is right in bracketing *cognoscunt*, which was probably repeated from above. We have however not unfrequent exx. of awkward repetition in C. Cf. Madv. *Fin.* I 41 *accedit—accedere*, *Divin.* I 129 *sentiunt quod quisque sentiat*, *Off.* I 8 *sic definiunt ut definiant*, *Acad.* II 102 *scripsit poetam cum scripsisset...scripsit...scriptum est;* so *diligunt* below § 165, *licebat Leg.* II 65, *videmus Fin.* II 110, *diceret* ib. IV 47, *dixerim Acad.* I 44.

§ 146. **artificiosum judicium**: compare on the trained judgment of the connoisseur *Acad.* II 20 *adhibita vero exercitatione et arte, ut oculi pictura teneantur, aures cantibus, quis est quin cernat quanta vis sit in sensibus? quam multa vident pictores in umbris et in eminentia* ('*chiaroscuro*') *quae nos non videmus! quam multa quae nos fugiunt in cantu, exaudiunt in eo genere exercitati! qui primo inflatu tibicinis Antiopam esse aiunt aut Andromacham, cum id nos ne suspicemur quidem! nihil necesse est de gustatu et odoratu loqui, in quibus intellegentia, etsi vitiosa, est quaedam tamen.* In both passages C. omits to state that it is the action of reason which gives the human senses their superiority.

**vocis—tibiarum nervorumque cantibus**: 'vocal and instrumental music', cf. below § 149 and *Tusc.* I 4 *in nervorum vocumque cantibus*, *Leg.* II 38 *in cavea (ludi) cantu fiant ac fidibus ac tibiis*, *R. P.* II 69 *ut in fidibus aut tibiis atque ut in cantu ipso ac vocibus concentus est quidam*

*tenendus ex distinctis sonis, quem immutatum aut discrepantem aures eruditae ferre non possunt;* above § 89, and § 22 where *cano* is used of instrumental music.

**intervalla**: differences of pitch (διάστημα), as in *Tusc.* I 41 *harmoniam ex intervallis sonorum nosse possumus.*

**distinctio**: Sch. translates 'tonfarbe', 'timbre'. In Quintilian (see Bonnell's *Index*) it is used for a break or pause, and so Hottinger (*Cic. Ecl.* p. 61) takes it here. Is it not rather 'contrast', the light and shade produced by varying loudness?

**canorum—durum**: Olivet translates 'les claires, les sourdes, les douces, les aigres, les basses, les hautes, les flexibles, les rudes'; Kühner 'das Klangreiche und Dumpfe, das Weiche und Rauhe, das Tiefe und Hohe, das Geschmeidige und Harte'.

**canorum**: clear, ringing, bell-like. It is used for blame *Off.* I 134 (in conversation the voice should be) *nec languens nec canora*, which Holden translates 'neither monotonous nor too much modulated' (?); cf. *Cato* 28 *canorum illud in voce splendescit etiam in senectute*, translated by Reid 'that resonance which the voice possesses actually gains brilliance in old age'. It is possible however that we ought to read *candidum* here, that being the technical opposite to *fuscum*, as is shown in the next note.

**fuscum**: 'a thick, muffled voice'. So Sextus Emp. VI 41 speaking of the metaphorical terms employed in music, mentions some borrowed from the eye, ὥσπερ φαιάν τινα (dun-coloured) καὶ μέλαιναν καὶ λευκὴν φωνήν, and Arist. *Top.* I 15 p. 106 b, *Audib.* 27 p. 802 *a* παρὸ καὶ δοκοῦσιν οὐ χείρους εἶναι τῶν λευκῶν αἱ καλούμεναι φαιαί· πρὸς γὰρ τὰ πάθη καὶ τὰς πρεσβυτέρας ἡλικίας μᾶλλον ἁρμόττουσιν αἱ τραχύτεραι καὶ μικρὸν ὑποσυγκεχυμέναι καὶ μὴ λίαν ἔχουσαι τὸ λαμπρὸν ἐκφανές, Galen *Hipp. et Plat.* p. 383 K. κάκωσίν τινα ἐνδείκνυται τῆς φωνῆς τοῦ ἀνθρώπου· ἢ γὰρ σμικρόφωνον, ἢ τραχύφωνον ἢ μελάμφωνον κ.τ.λ., Quint. XI 3 § 15 the voice differs in quantity or quality; in quantity it may be either *grandis* or *exigua* or intermediate; *qualitas magis varia est, nam est et candida et fusca, et plena et exilis, et levis et aspera, et contracta et fusa, et dura et flexibilis, et clara et obtusa.* Other epithets are given ib. §§ 32, 40. Speaking of the tone suited for pathos, he says (§ 170) *orbos viduasque videas in ipsis funeribus canoro quodam modo proclamantes* (showing the natural expression of grief). *Hic etiam fusca illa vox qualem Cicero fuisse in Antonio dicit, mire faciet* (the passage referred to is *Brutus* 141 *vox permanens verum subrauca natura*); Suet. *Nero* 20 *quamquam exiguae vocis et fuscae*, expressed by Xiphil. cited in note καὶ βραχὺ καὶ μέλαν φώνημα: Plin. *N. H.* XXVIII 16 (6) (*Venere*) *vox revocatur cum e candida declinat in fuscum;* cf. Dem. Phal. *Eloc.* 87, Suidas *s. v.* λευκόν, λευκὴ φωνὴ ἡ εὐήκοος, also under μέγα, Pollux *Onom.* II 4. 117, Camerarius *Comm. Utr. Ling.* pp. 168—170.

**nariumque et gustandi magna judicia sunt**: I have omitted *et parte tangendi* after *gustandi* with Orelli's Cod. C. Ears, eyes, nose, taste, are the organs of connoisseurs and therefore naturally mentioned; see the

parallel passage in *Acad.* II 20 foll., where feeling is brought in after the other senses, as the connecting link between the body and the mind § 21 *animo jam haec tenemus comprehensa, non sensibus*, and no allusion is made to the educated touch, say, of the *fidicen.* But a reader might think proper to add the 5th sense: if illiterate, he might write in the margin *et parte tangendi* 'and with the organ of touch', or as Sch. and Allen read after Dav. *et pariter tangendi* 'and, no less, of touch'. Ba.'s reading *arte tangendi* in the sense of 'pressing' is certainly wrong. The only difficulty in omitting the words is that *corporum lenocinia* below might at first sight appear to correspond to touch, as *unguenta* and *conditiones* to smell and taste, but I think C. is not there confining himself to this clause, but giving general exx. of the misuse of the senses through luxury, and that it is the *judicium oculorum* which is solicited by these *lenocinia.*

**gustandi**: is a remarkable instance of the Gerund used in the Subjective Gen. (*gustatus judicat*) and joined with a substantive.

**ad sensus perfruendos**: *utor, fruor, fungor, potior* were transitives in the older Latin, and could therefore be used in the Gerundive, see Madv. § 421 obs. 2, Roby § 1374, and *Cato* 57 *ad quem fruendum, Off.* I 25 *ad perfruendas voluptates*, ib. II 41 *justitiae fruendae causa*, ib. § 87 *de utenda pecunia, Tusc.* III 15 *ad suum munus fungendum.*

**quo processerint**: 'to what lengths they have run', cf. Sall. *Jug.* 5 *eo vecordiae processit ut.*

**conditiones**: 'sauces'. **lenocinia**: 'meretricious adornments of the person'; sometimes used in a good sense by later writers, of that which sets off anything, e.g. Sen. *Ben.* I 11 13 *lenocinium est muneris antecedens metus.* The three instances of luxury here named would all come under the Platonic κολακευτική.

C d (8). δ. *Providence shown in the gift of reason* (λόγος ἐνδιάθετος). §§ 147, 148.

Ch. LIX § 147. **dum disputarem—vellem**: 'I could have wished that, during my argument, your eloquence were given me'. The correction *vellem* is I think absolutely needed: the mood and tense of *disputarem* must be explained as attracted to it, cf. § 2 n.

**illa**: as usual, of what follows. **quanta intellegentia—comprehensio**: 'what keen perception, what a power of bringing together and seeing in one view premisses and consequences!' Cf. *Fin.* V 26 *ut jam liceat una comprehensione omnia complecti, non dubitantemque dicere omnem naturam esse conservatricem sui;* ib. IV 55 *consequentibus vestris sublatis, prima tolluntur. Comprehendo* means not only to grasp one thing firmly (=καταλαμβάνω), but to hold together a number of things at once (=συλλαμβάνω).

**rerum**: used here of abstract ideas, as above *ipsis rebus*, and below *quibusque rebus, singulas res.* That this was its original force is probable from its connexion with *reor*, cf. the Eng. *thing* and *think.*

**ex quo**: this refers generally to what precedes, the greatness of man's understanding. The second *ex quo* refers to reasoning by definitions and syllogisms.

**videlicet**: if the text is correct, I think we must take this in its original sense = *videre licet*, as in Plautus and Lucretius (so we find *scilicet* followed by Acc. c. Inf. in Sallust *Jug.* 102 § 9, *Hist.* fr. 51 § 5), or it would be easy to make this slight correction. Otherwise I should prefer to insert some word like *judicamus* before it, with Vahlen: I do not think *concludimus* suits *efficiatur*, and there is no justification here for *idque* in the sense of *καὶ ταῦτα*.

**ex quibusque**: pl. because a single conclusion may depend on many arguments.

**circumscripte**: cf. *Orat.* I 189 *est enim definitio rerum earum quae sunt ejus rei propriae, quam definire volumus, brevis et circumscripta quaedam explicatio*, where Wilkins translates it 'strictly limited'. This sense is not to be confused (as by L. and S.) with that in which it is applied to a rounded period, as in *Orator* 204, 221.

**ex quo scientia**: *Acad.* I 32 (the Old Academy) *scientiam nusquam esse censebat nisi in animi notionibus atque rationibus, qua de causa definitiones rerum probabant*; ib. § 41 *ad haec quae visa sunt et quasi accepta sensibus assensionem jungit animorum;...quod autem erat sensu comprehensum,...si ita erat comprehensum, ut convelli ratione non posset, scientiam* (*appellabat Zeno*).

**quam vim habeat**: followed in MSS by *qualis sit.* Allen inserts *et*, comparing *Divin.* I 9 *id, si placet, videamus, quam habeat vim et quale sit.*

**illa sunt**: for the Pl. see I 20 *illa palmaria* n.

**ea quae extra sunt**: 'the external world', here almost equivalent to 'objective truth', cf. *Ac.* II 76 *Cyrenaici negant esse quicquam quod cerni possit extrinsecus, ea se sola percipere quae tactu intimo sentiant.* Not only ratiocination is trustworthy, but also the combination of sensation and reason, by which we apprehend the outer world, cf. *Ac.* II 19 foll., where each is proved separately: the Academic disputant attacks sensation in II 79, dialectic in II 91 foll.

§ 148. **ex quibus collatis inter se artes efficimus**: cf. *Ac.* II 22 *ars vero quae potest esse nisi quae non ex una aut duabus, sed ex multis animi perceptionibus constat? Fin.* III 18 (*artes constant*) *ex cognitionibus*, where Madv. cites the Stoic definition *τέχνην εἶναι σύστημα ἐκ καταλήψεων συγγεγυμνασμένων* (Sext. *P. H.* III 188).

**partim ad usum...partim ad oblectationem**: see below § 150, Bywater *J. of Phil.* VII p. 85, who refers to the Aristotelian distinction between arts *πρὸς χρῆσιν* and *πρὸς διαγωγήν*, cf. *Metaph.* I 1 p. 981 a *γίνεται τέχνη ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων μία καθόλου γένηται περὶ τῶν ὁμοίων ὑπόληψις*, and a little below *πλειόνων εὑρισκομένων τεχνῶν καὶ τῶν μὲν πρὸς τἀναγκαῖα τῶν δὲ πρὸς διαγωγὴν οὐσῶν* with Bonitz's n.

C d (8). ε. *Providence shown in the gift of speech* (λόγος προφορικός) *and the wondrous mechanism of the vocal organs.* §§ 148, 149.

**domina rerum**: cf. *Orat.* I 30—35, 202, II 35.

**ut vos soletis dicere**: cf. §§ 1 and 168, where Cotta is described as Academic and Orator in one.

**quae ignoramus**: on the Ind. after Rel. in Infinitival subordination, see Madv. § 369 *obs.* 1.

**iracundias**: 'outbursts of passion', see on Pl. of Abstracts § 98 n.

**a vita immani segregavit**: cf. *Orat.* I 33 *quae vis alia* (than eloquence) *potuit aut dispersos homines unum in locum congregare aut a fera agrestique vita ad hunc humanum cultum deducere? Leg.* I 62. In *Tusc.* V 5 the beginning of civilization is attributed to philosophy instead of eloquence, *tu (philosophia) dissipatos homines in societatem vitae convocasti:* cf. *Sext.* 91 where this is assumed to be the general belief: but in *De Invent.* I 2 it is argued that both eloquence and wisdom were needed to effect the change; either by itself would have been useless, if not mischievous. A comparison with Seneca *Ep.* 90 shows that this theory of civilization was maintained by Posidonius. See below § 150.

§ 149. **incredibile est si attenderis**: the correction *si* for *nisi* was proposed first by Kindervater and then by Madv. and has been generally adopted. With it the meaning is 'if you closely attend, it is wonderful how great is the skill displayed by nature'. The other reading assigns to *incredibilis* its literal force of *vix credas*, a sense in which it is never used by C., thus 'you would never believe, unless you paid close attention to the subject, the skill shown by nature'. As *si* is a little obscure and elliptical, it was easily liable to corruption; we have to supply some such phrase as *ut tibi videbitur* before it (cf. the use of *si* § 144 n., and § 167 n.).

**arteria**: cf. § 136 n.

**principium a mente ducens**: cf. *Plac. Phil.* IV 19 Πλάτων τὴν φωνὴν ὁρίζεται πνεῦμα διὰ στόματος ἀπὸ διανοίας ἡγμένον (see the *Sophista* 163 E); ib. 21 'the Stoics distinguish seven faculties of the soul or ἡγεμονικόν, viz. the five senses, τὸ σπέρμα καὶ τὴν φωνήν, which last they define as πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι φάρυγγος καὶ γλώττης'. Galen (*Hipp. Plat.* p. 241, 251, 354 K.) finds fault with Zeno and Chrysippus for maintaining that the heart, not the brain, is the seat of reason, on the ground that the voice is sent from the heart. The word in the breast was called λόγος ἐνδιάθετος, the word in the mouth λόγος προφορικός, cf. Zeller IV p. 57, 195 foll., Nemesius c. 14, and Philodemus cited above I 41.

**percipitur et funditur**: 'through which the voice is caught (from the heart) and uttered': for *percipitur* cf. § 141 *aures sonum percipere;* for *funditur Tusc.* II 56 *latera fauces linguam, e quibus elici vocem et fundi videmus.*

**finita dentibus**: Sch. reads *munita* comparing the Homeric ἕρκος ὀδόντων, *vallum dentium* in Gell. I 15, Apul. *Doctr. Plat.* c. 14, also Lact.

*Opif.* c. 10 *linguam dentium saeptis deus quasi muro circumvallavit*, where Bünemann cites Apul. *Flor.* II 15 *verba intra murum candentium dentium premere*, *Apol.* 7 *sermo e dentium muro proficiscitur.* I think however that *finita* may be defended in reference to the *immoderate profusam* which follows. The tongue is confined by the teeth and so is able to confine the sounds.

**immoderate profusam**: 'spoken of inarticulate sound, as *Leg.* I 27 *moderationem vocis* of articulate' Sch.; cf. *Orat.* III 40 *etiam lingua et spiritus et vocis sonus est moderandus.*

**pressos**: we have had the word *premo* in the sense 'to condense' § 20; here it is used of sound which is sharply and clearly articulated by the pressure of the lips and tongue; so in *Orat.* III 43 Cic. speaks of the pure Roman pronunciation as marked by *lenitate vocis atque ipso oris pressu*, and in § 45, after saying that women are the best witnesses to the old pronunciation, he describes Laelia as speaking *non aspere, non vaste, non rustice, non hiulce, sed presse et aequabiliter et leniter.* It is the mean between the faulty extremes mentioned in *Orat.* III 41 *nolo exprimi litteras putidius, nolo obscurari neglegentius.* Quintil. uses *expressus* in the sense of C.'s *pressus* (I 11 § 4) *imprimis vitia, si qua sunt oris, emendet, ut expressa sint verba, ut suis quaeque litterae sonis enuntientur*, cf. XI 3 § 33. The word was further used in regard to written language, apart from pronunciation, in the sense 'distinct', 'exact', as in *Orat.* II 56; cf. Ernesti *Lex. Techn.* s. v., and Holden on *Off.* I 133.

**plectri similem**: cf. Nemes. c. 14 in the mouth διαπλάττεται καὶ σχηματίζεται καὶ οἱονεὶ μορφοῦται ἡ διάλεκτος· τῆς μὲν γὰρ γλώττης καὶ τοῦ γαργαρεῶνος (*uvula*) πλήκτρου λόγον ἐπεχόντων, τῆς δὲ ὑπερῴας ἠχείου (sounding board), τῶν δὲ ὀδόντων καὶ τῆς ποιᾶς τοῦ στόματος διανοίξεως ὡς ἐν λύρᾳ τὴν τῶν χορδῶν ἀναπληρούντων χρείαν, συντελούσης τι καὶ τῆς ῥινὸς πρὸς εὐφωνίαν, κ.τ.λ. Hieron. *de Spiritu Sancto* 35 *linguae organum commovemus et quasi quoddam plectrum chordis dentium collidentes vocum sonitum emittimus*, Ambr. *Hex.* VI 67 *lingua plectrum loquentis.* Theodoret even maintains that musical instruments were invented in imitation of the mechanism of the mouth (*Prov.* III p. 515 Sch.), see also ib. p. 513, where it is compared to an organ, ὀργάνῳ γὰρ ἔοικεν ἀπὸ χαλκῶν συγκειμένῳ καλάμων καὶ ὑπ' ἀσκῶν ἐκφυσουμένῳ καὶ κινουμένῳ ὑπὸ τῶν τοῦ τεχνιτοῦ δακτύλων. Prudent. (*Rom. Mart. Suppl.*) *qui fecit ut vis vocis expressa intimo pulmone et oris torta sub testudine* (sounding board) *nunc ex palato det repercussos sonos, nunc temperetur dentium de pectine, sitque his agendis lingua plectrum mobile.* In the same poem we find *plectrum* used as a name for the tongue, *plectrum palati et faucium saevus tibi tortor revulsit*, cf. Pollux *Onom.* II 104, 105. The metaphor of the *plectrum* was applied to the Sun by Cleanthes, because when he strikes the world with his rays εἰς τὴν ἐναρμόνιον πορείαν τὸ φῶς ἄγει: cf. Varro *Menip.* 351 Büch. *quam nobilem divum lyram sol harmoge quadam gubernans motibus diis veget* (Hirzel *Unters.* II p. 181).

**nares cornibus**: for the combination of different cases after *similis*, cf.

above I 90 *hominum similes...illud huic;* Lucr. IV 1211 *tum similes matrum materno semine fiunt, ut patribus patrio.* The Gen. is by far the commoner construction in Cic. in reference to persons, see Madv. *Fin.* V 13. In later writers the Dat. is chiefly used, see Madv. *Gr.* 219 *obs.* 2. We find a similar combination after *expers*, Sall. *Cat.* 33 *plerique patriae, omnes fama atque fortunis expertes sumus.* On *cornibus* cf. above § 144; probably the plural here refers to the so-called horns of the lyre, which being hollow would tend to deepen the sound, cf. Greg. Nyss. *c. Eunom. Or.* 12 ἡ δ' ὑπερῴα διὰ τοῦ ὑπερκειμένου κενώματος τοῦ κατὰ τοὺς μυκτῆρας διήκοντος, καθάπερ τις μαγὰς ἄνωθεν ἐπιπλατύνει τῷ ἤχει τὸν φθόγγον. The Masc. *cornus* occurs in Varro *Sat. Men. Eum.* 36 (p. 173 Büch.) *Phrygius per ossa cornus liquida canit anima* [taken from Nonius pp. 233 and 334, the readings being very doubtful in both places. R.]: we find the Acc. *cornum* in Lucr. II 388, Ov. *Met.* II 874; the Lexx. cite Scribonius for *cornorum.*

**in cantibus**: cf. § 146 n.

C d (8). ζ. *Providence shown in man's capacity for action, and in the wonderful mechanism of the hand.* §§ 150—152.

Ch. LX § 150. **manus**: cf. Arist. *P. A.* IV 10 § 19 Ἀναξαγόρας μὲν οὖν φησὶ διὰ τὸ χεῖρας ἔχειν φρονιμώτατον εἶναι τῶν ζῴων ἄνθρωπον· εὔλογον δὲ διὰ τὸ φρονιμώτατον εἶναι χεῖρας λαμβάνειν. αἱ μὲν γὰρ χεῖρες ὄργανόν εἰσιν, ἡ δὲ φύσις ἀεὶ διανέμει, καθάπερ ἄνθρωπος φρόνιμος, ἕκαστον τῷ δυναμένῳ χρῆσθαι...Ὁ γὰρ φρονιμώτατος πλείστοις ἂν ὀργάνοις ἐχρήσατο καλῶς, ἡ δὲ χεὶρ ἔοικεν εἶναι οὐχ ἓν ὄργανον ἀλλὰ πολλά· ἔστι γὰρ ὡσπερεὶ ὄργανον πρὸ ὀργάνων...Ἡ γὰρ χεὶρ καὶ ὄνυξ καὶ χηλὴ καὶ κέρας γίνεται καὶ δόρυ καὶ ξίφος καὶ ἄλλο ὁποιονοῦν ὅπλον καὶ ὄργανον. See the whole passage. Lucretius (IV 830) argues against the Stoic doctrine, 'beware of thinking that arms and hands were given *utraque ex parte ministras, ut facere ad vitam possemus quae foret usus...quod natum est id procreat usum'*. The subject is fully treated by Galen *Us. Part.* I, Theodoret *Prov.* IV.

**molles commissuras et artus**: hendiadys 'the flexibility of the joints'. Perhaps we may distinguish *commissura* as denoting particularly the cartilaginous lining of the joint [and *artus* as the joints of the fingers, i.e. the three small bones of which each finger is made up. R.].

**admotione digitorum**: no other ex. of this word is cited before 400 A. D., but in *Brut.* 200 we read *animis judicum admovere orationem tamquam fidibus manum*, which might suggest that it was a technical word for musical 'fingering'.

**haec oblectationis**: the fine arts just mentioned, painting, modelling, carving, music.

**suta**: made of some natural material which only wanted fastening together; cf. Lucr. V 1350 *nexilis ante fuit vestis quam textile tegmen.*

**ad inventa animo, percepta sensibus adhibitis opificum manibus**: 'when the inventions and observations of the philosopher were applied to practice by means of the skilled hand of the workman', lit. 'when the

hand was employed upon the inventions &c.' On the history of Civilization see *Orat.* 9 *neque te fugit omnium laudatarum artium procreatricem quandam et quasi parentem eam, quam φιλοσοφίαν Graeci vocant, ab hominibus doctissimis judicari*, and (C.'s authority) Posidonius ap. Seneca *Ep.* XC where all arts are traced to philosophers; *narrat quem ad modum rerum naturam imitatus panem coeperit facere* &c. (§ 22). Compare also Lucr. V 1100 on the use of fire; 1241 foll. of metals; 'something which men saw and admired (*percepta sensibus*) suggested effort to produce a similar result by artificial means' 1255 foll.; musical instruments 1379 foll.; 'these suggestions were caught up by men of genius (*inventa animo*)', 1105—1107. See generally on the ideas of the ancients as to the origin of civilization Lewis *Methods of Observation* &c., c. XXII § 20 with the reff., and, on inventions, ib. c. X § 6. **opificum**: Walker corrected *opificibus* after Arnob. II 17 *quamvis sint nobis opifices manus*, but there is an implied opposition of the mind, embodied in the philosopher, and the hand, in the workman.

§ 151. **operibus hominum**: so above § 99 *hominum operibus agri insulae litoraque collucent distincta tectis.* Ba. reads *operis*: if any change is needed I should prefer *opera*, cf. *Off.* II 12 *neque frugum perceptio sine hominum opera ulla esse potuisset*, ib. § 14 *sine hominum manu atque opera*, (bis) ib. § 11 *pecudes quarum opera efficitur aliquid* (so Ba. and Heine with one MS, Holden *opere* with other MSS), ib. § 14 *unde sine hominum opera habere possemus?* (so Ba. Heine with Asc., Holden *opere* with MSS), ib. § 12 *pleraque sunt hominum operis effecta.* It is possible that *operibus* may have been a correction by a reader who took *opera* for the plural.

**quae mandentur vetustati**: 'for keeping', a singular phrase; it is common enough to say *mandare aliquid memoriae* or *monumentis*; but we do not think of *vetustas* as having any existence apart from the things of which it is a quality: we may compare *mandare vitam solitudini* 'to give over one's life to solitude'. For exx. of *vetustas* used of duration in the future, cf. *Att.* XIV 9 *quae mihi videntur habitura etiam vetustatem* 'likely to last', *Milo* 98 *nulla obmutescet vetustas*; it was especially used of eatables which would 'keep', e.g. Colum. XII 46 *poma in vetustatem reponere*, ib. c. 11 *mella in vetustatem reponere*, Cato *R. R.* 114 *vinum servare in vetustatem*, Col. III 2 *vetustatem vinum patitur et ad bonitatem aliquam per annos venit*; hence the word *vetustesco* used of wine Col. I 6, and the metaphorical use in Quintil. X 1 § 40 *auctores qui vetustatem pertulerunt.*

**condita**: see below § 156 *condendi ac reponendi*, 157 *frumentum condunt.*

**terrenis et aquatilibus**: see above § 42 and I 103.

**vescimur...capiendo, alendo**: a careless expression for *quas capimus, alimus.* Sch.

**vectiones**: ἅπ. λεγ. a curious abstract expression for *ut vehant.*

**onera—juga**: see below § 159.

**elephantorum**: cf. I 97. Aristotle (*H. A.* IX 46) calls it εὐαίσθητον καὶ συνέσει τῇ ἄλλῃ ὑπερβάλλον.

**abutimur**: 'turn from its natural use to our own', cf. *Quint.* 99 *ne*

*ornamentis ejus omnibus Naevius pro spoliis abutatur; Invent.* II 24 *quas ad defensionem reo dabimus, iis accusator ad alios ex culpa eximendos abutetur; Orator* 94 *Aristoteles tralationi subjungit abusionem, quam κατάχρησιν vocant, ut cum abutimur verbis propinquis, si opus est.* Like ἀποχράομαι and καταχράομαι it has also the sense of 'to use to the full' as in *Verr.* I 9 § 25 *nisi omni tempore, quod mihi lege concessum est, abusus ero.*

**e terrae cavernis ferrum elicimus:** Mu. reads *eligimus*, comparing § 161, where the reading of all the better MSS is *ex earum corporibus remedia morbis eligamus; Div.* II 149, where the MSS have *ejiciendae*, but Mu. and Ba. adopt Madv.'s conjecture (in his *Emend. Liv.* p. 155 (183²) n. and *Advers.* II 205) and read *superstitionis stirpes omnes eligendae; Fin.* II 119 *eligerem ex te cogeremque ut responderes*, where however Madv. and Mu. both read, by conjecture, *elicerem*, and Ba. *exigerem; Tusc.* III 83 *stirpes aegritudinis omnes eligendae sunt* (on which see Mu.'s n. in *Praef.* p. xxxix foll.) and ib. 84 *fibrae stirpium persequendae et eligendae sunt.* There is no doubt that *eligere* is the natural word to use of pulling up weeds, as in Colum. IV 5, Varro *R. R.* I 47, Curtius IV 4; but we could hardly talk of picking or pulling out iron, we want a word to express the educing of iron concealed in the ore, and this is just the force of *elicio*, as above § 25 *lapidum tritu elici ignem*, § 150 *ad nervorum eliciendos sonos, Cato* 51 (*terra*) *elicit herbescentem ex semine viriditatem* by means of heat and pressure (just as in the case of the iron). **cavernis** = *fodinis.*

**venas penitus abditas:** cf. *Div.* I 116 *aurum et argentum, aes, ferrum frustra natura divina genuisset nisi eadem docuisset, quem ad modum ad eorum venas perveniretur*, and the parallel passage *Off.* II 13 *nec ferrum, aes, aurum, argentum effoderetur penitus abditum*, which Ribbeck gives as fr. 85 *Incertorum* in his *Trag. Lat.* suggesting (p. 301¹) that it may be taken from the *Prometheus* of Attius, as the words nearly resemble Aesch. *Prom.* 508 ἔνερθε δὲ χθονὸς κεκρυμμέν' ἀνθρώποισιν ὠφελήματα χαλκόν, σίδηρον, ἄργυρον, χρυσόν τε τίς φήσειεν ἂν πάροιθεν ἐξευρεῖν ἐμοῦ; For instance of similar half-conscious unavowed quotation see above § 25. **venas:** cf. § 98.

**consectione:** cf. *Divin.* I 116 *materia quid juvaret nisi consectionis ejus fabricam haberemus?*

**materia:** cf. *aedes male materiatae* 'built of bad timber' *Off.* III 54, *faber materiarius* 'carpenter'.

**mitigandum:** rarely used in the literal sense, cf. Ov. *Met.* XV 78 *sunt quae mitescere flamma mollirique queant*, and above § 130 *mitigat agros.*

§ 152. **affert:** sc. *materia.*

**quorum cursibus:** in English we should say more generally 'by means of which', while on the other hand we should have certainly used more definite terms instead of **res** below; which stands (1) for the uncontrollable forces of nature, (2) for navigation, (3) for marine products. Compare for (2) Caes. *B. G.* III 8 *scientia atque usu nauticarum rerum.*

**propter scientiam** gives the reason why we are able both to control the winds and to obtain (3).

**aquarum inductionibus**: cf. the parallel passage *Off.* II 14 *adde ductus aquarum, derivationes fluminum, agrorum irrigationes*, Virg. *G.* I 106.

[**nos flumina arcemus, derigimus, avertimus**: 'we confine rivers, we straighten their course, we divert them altogether'. *Arcere* refers to strengthening and raising the banks to prevent overflow; *derigere* to the improvement of the river for navigation by dressing the banks and substituting short cuts for the natural bends; *avertere* to making a new channel for the river where the old was inconvenient or dangerous or occupied too large a bed. The first and third operations at least are noticed by Ulpian in *Dig.* XLIII 13 § 7 *Qui quid in flumine publico fecit (pone enim grande damnum flumen ei dare solitum, praedia ejus depopulari), si forte aggeres vel quam aliam munitionem adhibuit, ut agrum suum tueretur, eaque res cursum fluminis ad aliquid immutavit, cur ei non consuletur? plerosque scio prorsus flumina avertisse alveosque mutasse, dum praediis suis consulunt.* The rapid and excessive rise of the streams in Italy occasioned many legal difficulties, which are discussed in the Digest and in the writings of the Agrimensores. R.]

**alteram naturam**: so we speak in a somewhat different application of 'use being a second nature'; cf. *Fin.* V 74 *(voluptatem) consuetudine quasi alteram quandam naturam effici:* Seneca *Prov.* 4 § 15 *nihil miserum est quod in naturam consuetudo perduxit;* Quintil. II 4 § 17 *hujus rei naturam sibi faciat* 'let him make a nature of it' i.e. habituate himself to it; Macrob. *Sat.* VII 9 § 7 *consuetudinem secundam naturam pronuntiavit usus.* [Add *Clementin.* p. 7 23 Lagarde δευτέρα φύσις ἡ συνήθεια, Chrys. II 509[a], X 61[d], 490[b]. J. E. B. M.]

C d (8). η. *Providence shown in man's capacity for contemplation and worship.* § 153.

Ch. LXI § 153. **finitus est dies**: 'the day, month and year have been determined' (had their limits assigned). For this use of *finio* cf. *Leg.* II 20 *cursus annuos sacerdotes finiunto*, *Fam.* XV 9 *(tempus) quod tu mihi et senatus consulto et lege finisti*, *Fat.* 30 *finitus est moriendi dies*, Caes. *B. G.* VI 18 *spatia omnis temporis numero noctium finiunt.*

**defectiones praedictae**: cf. *Divin.* I 112 (Thales) *primus defectionem solis, quae Astyage regnante facta est, praedixisse fertur; R. P.* I 16, Herod. I 74, Diog. L. I 23, Cleomedes II 6 p. 124 ἤδη προλέγονται πᾶσαι αἱ ἐκλείψεις (τῆς σελήνης) ὑπὸ τῶν κανονικῶν.

**quae contuens—e qua—cui—e quibus—quae**: a remarkable ex. of the compound relative construction, see Index.

**accedit ad cognitionem deorum**: supposing this to be the right reading, it is rather an unusual expression for 'attaining to'.

**cui conjuncta justitia**: cf. I 4, and 116. with nn., *Fin.* V 65 *justitia cui sunt adjunctae pietas, bonitas, liberalitas, benignitas*, Seneca *Ep.* XC 3

*philosophiae opus unum est de divinis humanisque rebus verum invenire; ab hac numquam recedit religio justitia pietas et omnis alius comitatus virtutum consertarum et inter se cohaerentium.* It was a Stoic maxim that he who had one virtue must have all virtues, in the words of Chrysippus (Plut. *Sto. Rep.* 27) τὰς ἀρετὰς ἀντακολουθεῖν ἀλλήλαις, οὐ μόνον τῷ τὸν μίαν ἔχοντα πάσας ἔχειν ἀλλὰ καὶ τῷ τὸν κατὰ μίαν ὁτιοῦν ἐνεργοῦντα κατὰ πάσας ἐνεργεῖν; see *Fin.* v 67; and on the connexion between physics and ethics, the observation of nature and a virtuous life, see above § 37 n. and Beier's *exc.* IX on *Off.* I.

**similis deorum**: an abbreviation for *s. vitae d.*, so just below *cedens caelestibus, anteiret animantes;* cf. Juv. III 74 *sermo promptus et Isaeo torrentior* with Mayor's n.; *Orat.* I 15 *ingenia nostrorum hominum ceteris hominibus praestiterunt; Il.* XVII 51 κόμαι Χαρίτεσσιν ὁμοῖαι. Sch. cites *Flacc.* c. 26 *cujus ego civitatis disciplinam non solum Graeciae sed haud scio an cunctis gentibus anteponam; R. P.* II 1 *praestare nostrae civitatis statum caeteris civitatibus.*

**nulla re nisi immortalitate—cedens caelestibus**: so Polyxena says in happier days she was ἴση θεοῖσι πλὴν τὸ κατθανεῖν μόνον Eurip. *Hec.* 356. This paradox seems to have been put forward in its most offensive form by Chrysippus, cf. Plut. *Comm. Not.* 33 p. 1076 ἀρετῇ οὐχ ὑπερέχειν τὸν Δία τοῦ Δίωνος...ἀρετῇ δὲ μὴ ἀπολειπόμενον ἄνθρωπον οὐδὲν ἀποδεῖν εὐδαιμονίας, ἀλλ' ἐπίσης εἶναι μακάριον τῷ Διὶ τῷ σωτῆρι τὸν ἀτυχῆ, *Sto. Rep.* 13 p. 1038 ὥσπερ τῷ Διὶ προσήκει σεμνύνεσθαι ἐπ' αὐτῷ...οὕτω τοῖς ἀγαθοῖς πᾶσι ταῦτα προσήκει κατ' οὐδὲν προεχομένοις ὑπὸ τοῦ Διός, Stob. *Ecl.* II 198, Seneca *Ep.* 73 § 13 *Juppiter quo antecedit virum bonum? diutius bonus est. Sapiens nihilo se minoris aestimet quod virtutes ejus spatio breviore clauduntur.* Seneca even goes so far as to say (*Ep.* 53 § 11) *est aliquid quo sapiens antecedat deum; ille naturae beneficio, non suo sapiens est. Ecce res magna, habere imbecillitatem hominis, securitatem dei;* and again *Const. Sap.* 8 § 2, *Prov.* 6 § 6 *hoc est quo deum antecedatis: ille extra patientiam malorum est, vos supra patientiam.* In §§ 17, 34, 36, 37, 39, 79 we have seen the other side of Stoic teaching: man is imperfect, situated in the lowest region of the universe, yet he has received the gift of reason and is capable of wisdom and virtue: therefore in those divine and perfect beings which inhabit the higher parts of the universe and breathe a purer air, these qualities must exist in greater measure and be used for higher ends. Further it is only the perfectly wise man in whom the perfection of virtue, and therefore of happiness, is to be found, but this perfectly wise man does not exist on earth. In the end the Stoic doctrine on this point merges into the Christian; the ideal man is God; see my *Sketch of Ancient Philosophy* p. 168 foll.

**quae nihil ad bene vivendum pertinet**: the question of the relation of duration to happiness had been mooted by the Cyrenaics and by Aristotle with reference to the famous dictum of Solon (*Eth.* I 10). Epicurus, seeking as usual to diminish the terrors of death, maintained that happi-

ness was independent of duration, Diog. x 145 ὁ ἄπειρος χρόνος ἴσην ἔχει τὴν ἡδονὴν καὶ ὁ πεπερασμένος, ἐάν τις αὐτῆς τὰ πέρατα καταμετρήσῃ τῷ λογισμῷ, *Fin.* I 63, II 87 *negat Epicurus nec diuturnitatem quidem temporis ad beate vivendum aliquid afferre, nec minorem voluptatem percipi in brevitate temporis, quam si illa sit sempiterna.* The opponent objects that this may be all very well in a Stoic; *qui bonum omne in virtute ponit, is potest dicere perfici beatam vitam perfectione virtutis; negat enim summo bono afferre incrementum diem;* but it is altogether inconsistent in an Epicurean, who makes happiness consist in pleasure, to deny that happiness would be increased by a longer continuance of pleasure. Cf. Plut. *Sto. Rep.* 26 p. 1046 (Chrysippus affirms) παρὰ τὸν πλείονα χρόνον οὐδὲν μᾶλλον εὐδαιμονοῦσιν, ἀλλ' ὁμοίως καὶ ἐπίσης τοῖς τὸν ἀμερῆ χρόνον εὐδαιμονίας μετασχοῦσιν, Seneca *Ep.* 85 § 22 *nesciunt beatam vitam unam esse. In optimo illam statu ponit qualitas sua, non magnitudo: itaque in aequo est longa et brevis,* ib. *epp.* 78 § 27, 101 §§ 9, 10, *Benef.* v 17 § 6, *Prov.* 1 § 5, Plut. *Comm. Not.* 8 p. 1062, Gataker on M. Ant. III 7.

**omnes anteiret**: the transitive force is shown in the Pass. *se abs te anteiri putant* (*Sulla* 23), but we also find the Dat. constr. as in *Off.* II 37 *ii qui anteire ceteris virtute putantur.* On the Imp. Subj. cf. I 8 n.

## D. Providential Care for Man. §§ 154—167.

(a) *Whatever is found to be useful to man was originally designed for his benefit.* (b) *The universe exists for the sake of its rational inhabitants, viz. Gods and men.* § 154.

§ 154. **atque aliquando perorem**: a parenthesis, added as a second thought.

Ch. LXII. **hominum causa**: see nn. on § 37 and § 133, *Leg.* II 15, *Fin.* III 67, Seneca *Ben.* VI 23 § 3, Plin. *N. H.* VII prooem. *hominis causa videtur cuncta alia genuisse natura,* Lact. *Ira* 13, Hirzel p. 197 foll., Schwencke p. 158.

**quaeque in eo sunt—inventa sunt**: Heind. is certainly right in objecting to this as pleonastic and confusing the treatment of the subject, but I am not satisfied that it is un-Ciceronian. *Inventa* is not confined to the discoveries of man (as Sch. says), for we read of *inventa deorum* in I 38, cf. II 60, and *Tim.* 9 *mente divina curriculum inventum est solis et lunae,* cf. Lewis *Methods of Observation* &c. I p. 411.

**mundus communis urbs**: cf. Posidonius ap. Diog. L. VII 138 καὶ ἔστι κόσμος, ὥς φησι Ποσ. ἐν τῇ μετεωρολογικῇ στοιχειώσει, σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν τούτοις φύσεων, ἢ σύστημα ἐκ θεῶν καὶ ἀνθρώπων καὶ τῶν ἕνεκα τούτων γεγονότων, and Arius ap. Euseb. *P. E.* XV 15 (Diels p. 464) ὃν τρόπον πόλις λέγεται διχῶς τό τε οἰκητήριον καὶ τὸ ἐκ τῶν συνοικούντων σὺν τοῖς πολίταις σύστημα, οὕτω καὶ ὁ κόσμος οἱονεὶ πόλις ἐστὶν ἐκ θεῶν καὶ ἀνθρώπων συνεστῶσα, τῶν μὲν θεῶν τὴν ἡγεμονίαν ἐχόντων, τῶν δ' ἀνθρώπων ὑποτεταγμένων· κοινωνίαν δ' ὑπάρχειν πρὸς ἀλλήλους διὰ τὸ λόγου μετέχειν, ὅς ἐστι φύσει

νόμος. The latter passage also is ultimately derived from Posidonius according to Lescaloperius and Diels pp. 21 and 464 n. The same doctrine is attributed to Chrysippus in the passage quoted from Philodemus on I 39. Cf. Cic. *Leg.* I 23, *Off.* I 153, *Fin.* III 64, Zeller IV pp. 285, 301, Plut. *Comm. Not.* 34 τὸν κόσμον εἶναι πόλιν καὶ πολίτας τοὺς ἀστέρας, Seneca *ad Marc.* 18 § 1 *puta nascenti me tibi venire in consilium. Intraturus es urbem dis hominibusque communem.* [The word 'cosmopolite' Diog. L. 6 63, Philo *Opif. Mundi* 49 (I 34 M.), ib. I 445 (-ῖτις ib. 657), *Const. Apostol.* 8 12 § 8, cf. Lightfoot on Philippians iii 20 ἡμῶν γὰρ τὸ πολίτευμα ἐν οὐρανοῖς, and pp. 306 foll. J. E. B. M.]

**Athenas**: cf. Antonin. IV 3 ἐκεῖνος μέν φησι Πόλι φίλη Κέκροπος, σὺ δὲ οὐκ ἐρεῖς Ὦ πόλι φίλη Διός;

D c. *The heavenly bodies, besides their general use for the preservation of the world, afford also a beautiful and instructive spectacle to man and man alone of animals.* § 155.

§ 155. **mundi cohaerentiam**: cf. above § 82, and n. on § 19, also *Ac.* I 28 *omni natura cohaerente et continuata cum omnibus suis partibus effectum esse mundum*, *Leg.* fr. *sicut una eademque natura mundus omnibus partibus inter se cohaeret ac nititur, sic omnes homines inter se natura confusi.* As the heaven is the chief seat of the etherial spirit which permeates and incloses and binds together the world, it may well be said *pertinere ad cohaerentiam*. Even eclipses contribute *ad universi firmitatem* Philo *Prov.* II 79. See the striking passage in Seneca *Ben.* VI 20 (*sol et luna*) *cum in hoc moveantur ut universa conservent, et pro me moventur; universi enim pars sum.* He then describes what would be the effect of a sudden pause in the revolutions of the heaven, *omnia ista ingentibus intervallis diducta et in custodiam universi disposita stationes suas deserant, subita confusione rerum sidera sideribus incurrant et rupta rerum concordia in ruinam divina labantur, contextusque velocitatis citatissimae in tot saecula promissas vices in medio itinere destituat, et quae nunc eunt alternis redeuntque opportunis libramentis, mundum ex aequo temperantia, repentino concrementur incendio ...Prosunt tibi euntque ista tua causa etiamsi major illis alia ac prior causa est.* [Compare Hooker I 3 § 2. Clem. Rom. *Ep.* I 20. J. E. B. M.]

**et spectaculum praebent**: Sch. explains *et* on the principle of Anacoluthon (cf. Madv. *Fin.* exc. I) and thinks C. meant to add some such phrase as *et magnam hominum vitae utilitatem afferunt* before *eorum enim*, but that he changed his mind and introduced the latter clause as an evidence of the reason exhibited in the movement of the stars. If we take *et* to mean 'also', as in I 72 and 83, where see nn., the preceding *etiam* becomes pleonastic.

**insatiabilior**: see § 98 n. **species**: cf. § 96 and § 100. **ad rationem praestantior**: cf. I 1, II 87; Sch. cites *Leg.* II 33, *Font.* 15.

**maturitates temporum**: 'when the times will be ripe', e.g. when to expect an eclipse or transit of Venus.

D d. *The products of the earth exist for man's sake, as plainly as a musical instrument for the sake of the performer; often they require his skill to make them of use, and their qualities can only be appreciated by his finer senses.* §§ 156—158.

§ 156. **feta frugibus**: 'teeming', cf. Lucr. II 994 *feta parit nitidas fruges*, and Ov. *F.* I 662 *seminibus jactis est ubi fetus ager.*

**leguminum**: 'all that grows in pods'. Sch. cites Varro *R. R.* I 32 § 2 (*legumina*) *dicta a legendo, quod ea non secantur sed vellendo leguntur*, and compares *χέδροπα = χειρόδροπα*.

**cum maxima largitate fundit**: cf. § 59 *molientium cum labore operoso* and Index under *cum.*

**ferarumne**: cf. n. on *seminane* I 91.

**laetissimique**: cf. Ps. 65 *v.* 13 'the valleys are covered over with corn, they shout for joy', but in the writers *Rer. Rust.* the word had quite lost its poetical colouring, see n. on *laetificat* § 130.

**percipiendi**: so in *Cato* 24 we have *serendis percipiendis condendis fructibus*, ib. 70 *reliqua tempore demetendis fructibus et percipiendis accommodata sunt*, cf. above § 13. [It is the regular technical term used in legal writings for getting in fruit or produce of any kind, e.g. *Dig.* VII 1 60 *quidquid in fundo nascitur vel quidquid inde percipitur, fructuarii est.* R.]

**condendi ulla pecudum scientia est**: for the combination of the Objective and Subjective Gen. see § 140. As to the fact cf. *Geo.* IV 56 (of bees) *aestate laborem experiuntur et in medium quaesita reponunt;* so of ants *Aen.* IV 402. The Psalmist takes a much wider view (Ps. 104) 'these wait all upon thee and thou givest them their meat in due season'. What Seneca says of the stars is true also of beasts and plants; they exist for us in part only.

Ch. LXIII § 157. **bestiae furantur**: Orig. c. Cels. IV 74 *ὥσπερ ἐν ταῖς πόλεσιν οἱ προνοούμενοι τῶν ὠνίων καὶ τῆς ἀγορᾶς δι' οὐδὲν ἄλλο προνοοῦνται ἢ διὰ τοὺς ἀνθρώπους, παραπολαύουσι δὲ τῆς δαψιλείας καὶ κύνες καὶ ἄλλα τῶν ἀλόγων· οὕτως ἡ πρόνοια τῶν μὲν λογικῶν προηγουμένως προνοεῖ, ἐπηκολούθησε δὲ τὸ καὶ τὰ ἄλογα ἀπολαύειν τῶν δι' ἀνθρώπους γινομένων.* Celsus turns this the other way § 76 *ἡμεῖς μὲν κάμνοντες καὶ προσταλαιπωροῦντες μόλις καὶ ἐπιπόνως τρεφόμεθα· τοῖς δ' ἄσπαρτα καὶ ἀνήροτα πάντα φύονται* (to which Origen replies it was to exercise the mind and the muscles); again (77) *εἰ δὲ καὶ τὸ Εὐριπίδειον ἐρεῖς, ὅτι Ἥλιος μὲν νύξ τε δουλεύει βροτοῖς, τί μᾶλλον ἡμῖν ἢ τοῖς μύρμηξι καὶ ταῖς μυίαις; καὶ γὰρ ἐκείνοις ἡ μὲν νὺξ γίνεται πρὸς ἀνάπαυσιν ἡ δὲ ἡμέρα πρὸς τὸ ἐνεργεῖν*, and (78) *εἴ τις ἡμᾶς λέγοι ἄρχοντας τῶν ζῴων, ἐπεὶ ἡμεῖς τὰ ἄλλα ζῷα θηρῶμέν τε καὶ δαινύμεθα· φήσομεν ὅτι, τί δ' οὐχὶ μᾶλλον ἡμεῖς δι' ἐκεῖνα γεγόναμεν, ἐπεὶ ἐκεῖνα θηρᾶται ἡμᾶς καὶ ἐσθίει;* especially as man needs nets and weapons, while nature has supplied the beasts with all they need for attack or defence.

§ 158. **nisi forte—dubitationem affert quin**: ironical 'unless the

flavour and scent and look lead you to doubt their being intended for man alone', cf. I 99. The negative force justifies the use of *quin.*

**ipsas bestias hominum gratia**: cf. above §§ 37, 140, 151, *Fin.* II 40, *Tusc.* I 69 and reff. in Zeller IV p. 172 n.

D e. *Even animals were created for the sake of man, to clothe him, guard him, feed him, carry him, draw for him, and finally to call forth his strength and courage.* §§ 158—161.

**quid oves aliud afferunt**: it is singular that C. makes no mention of the flesh of sheep; but mutton has never been a favorite article of diet with Itàlians. Horace speaks of *vilis agnina* (*Ep.* I 15 35); Ovid (*Met.* XV 119) says *vita magis quam morte juvatis:* Varro, Columella and Virgil, in treating of the farming of sheep, refer to their milk, but not to their flesh. In fact the word *ovina* is never used in the sense of 'mutton', though *bubula* 'beef' is common enough. For the usual Roman dishes see Becker *Gallus* tr. pp. 458 foll.

**villis**: used of wool by Varro *R. R.* II 2 *ovem esse oportet corpore amplo, quae lana multa sit et molli, villis altis et densis toto corpore;* Col. VI 3 § 7, Plin. VIII 73 *Apulae breves villo.*

**sine cultu hominum**: see above § 130, and the parallel passage in *Off.* II 12. **curatione**: cf. I 2.

**canum—dominorum adulatio**: for the combination of the Objective and Subjective Gen. see § 145 and Index.

**se esse generatos**: as the formal Subject is *canum alacritas*, not *canes alacres*, it would have been more regular to have used *eos* instead of *se:* for laxity in the use of the Reflexive Pron. see Roby § 2265 foll.

§ 159. **ad aratra extrahenda**: Sch. and Mü. read *trahenda* after Ernesti. I think the compound may have been preferred by Cic. partly to prevent the juxtaposition of *tra tra*, and partly to express the action of the oxen in pulling the ploughshare through deep clay; but apparently no parallel has been found for this use. There is something rather harsh in the omission of *sunt* with *natae.*

**quibus cum terrae subigerentur fissione glebarum**: I agree with Ba. in taking *quibus* as Abl. of Instrument, and *fissione* as Abl. of Manner after *subigerentur.* Other edd. put a comma after *quibus*, thus making it a Dat. governed by *afferebatur.* But the important thing is to state that the oxen were the instruments employed to break up the land; 'since the lands were ploughed by them, no violence was used towards them'. It is easy to supply the Dat. of the Demonstrative after *aff.* (see n. on I 12); or possibly, as Wytt. suggests, the ambiguous form *quibus* may have been intended to do double duty.

**ab illo aureo genere**: Dicaearchus and Posidonius rationalized the poetical belief in a Golden Age, cf. for the latter Seneca *Ep.* 90 § 3 foll. *primi mortalium quique ex his geniti naturam incorrupti sequebantur*

*eundem habebant et ducem et legem commissi melioris arbitrio...Illo ergo saeculo quod aureum perhibent, penes sapientes fuisse regnum Posidonius judicat ...Sed postquam subrepentibus vitiis in tyrannidem regna conversa sunt, opus esse coepit legibus, quas et ipsas inter initia tulere sapientes;* for the former *Frag. Histor. Graec.* II p. 233 foll. and Lewis *Methods of Observation* II p. 276 foll.

**ferrea tum vero:** C.'s translation from Aratus *Phaen.* 129 foll. ἀλλ' ὅτε δὴ κἀκεῖνοι ἐτέθνασαν, οἱ δ' ἐγένοντο χαλκείη γενεὴ προτέρων ὀλοώτεροι ἄνδρες, οἳ πρῶτοι κακοεργὸν ἐχαλκεύσαντο μάχαιραν εἰνοδίην, πρῶτοι δὲ βοῶν ἐπάσαντ' ἀροτήρων. Cf. V. *Geo.* II 536 *ante impia quam caesis gens est epulata juvencis, aureus hanc vitam in terris Saturnus agebat; necdum etiam audierant inflari classica necdum impositos duris crepitare incudibus enses,* Ovid on Pythagoras (*Met.* XV 120); and Pope's artificial imitation (*Essay on Man* III 147 foll.) describing the state of nature when 'man walked with beast joint tenant of the shade; no murder clothed him and no murder fed; Ah! how unlike the man of times to come, of half that live the butcher and the tomb'. The original of these descriptions is Hesiod *Op.* 109 foll. and l. 145 (of the brazen age) οὐδέ τι σῖτον ἤσθιον. Empedocles followed (l. 420 Mull.) ταύρων δ' ἀκρήτοισι φόνοις οὐ δεύετο βωμός (in the golden age), ἀλλὰ μύσος τοῦτ' ἔσκεν ἐν ἀνθρώποισι μέγιστον, θυμὸν ἀπορραίσαντας ἐεδμέναι ἠέα γυῖα, and Plato *Leg.* VI 782 C σαρκῶν ἀπείχοντο ὡς οὐχ ὅσιον ὂν ἐσθίειν οὐδὲ τοὺς τῶν θεῶν βωμοὺς αἵματι μιαίνειν, ἀλλ' Ὀρφικοί τινες λεγόμενοι βίοι ἐγίγνοντο ἡμῶν τοῖς τότε. On the other hand it was maintained that this early vegetarianism was owing simply to ignorance of fire, and that the proverb ἅλις δρυός originated in their expression of delight on escaping to a superior diet. On the Pythagorean practice see Zeller I p. 292 n., and cf. Sext. Emp. IX 127 οἱ μὲν οὖν περὶ τὸν Πυθαγόραν καὶ τὸν Ἐμπεδοκλέα...φασι μὴ μόνον ἡμῖν πρὸς ἀλλήλους καὶ πρὸς τοὺς θεοὺς εἶναί τινα κοινωνίαν, ἀλλὰ καὶ πρὸς τὰ ἄλογα τῶν ζῴων· ἓν γὰρ ὑπάρχειν πνεῦμα τὸ διὰ παντὸς τοῦ κόσμου διῆκον ψυχῆς τρόπον...διόπερ καὶ κτείνοντες αὐτὰ καὶ ταῖς σαρξὶν αὐτῶν τρεφόμενοι ἀδικήσομέν τε καὶ ἀσεβήσομεν, ὡς συγγενεῖς ἀναιροῦντες foll. Aelian (*V. H.* v 14) mentions an Athenian law which forbad the sacrifice of the labouring ox (see Hermann *Gr. Alt.* II 26 § 20). See also Juv. XV 173, 174 nn., the account of the βουφόνια in Smith's *Dict. of Ant.* under *Diipoleia* and Bernays' ed. of the fragments of Theophrastus *Ueber Frommigkeit*, preserved by Porphyrius *Abst.* II 27 foll.

**ut eorum visceribus vesci scelus haberetur:** cf. Varro *R. R.* II 5 *bos socius hominum in rustico opere et Cereris minister. Ab hoc antiqui manus ita abstineri voluerunt ut capite sanxerint si quis occidisset;* Colum. VI praef. *apud antiquos tam capitale erat bovem necasse quam civem;* Plin. *N. H.* VIII 48 *damnatus a populo Romano, qui...occiderat bovem, actusque in exilium, tamquam colono suo interempto.* For *visceribus* 'flesh' cf. above § 18 n.

Ch. LXIV. **longum est:** cf. I 19 and Index.

**asinorum:** so Epict. II 8 § 7 'the ass was not created for its own sake (προηγουμένως) but because we had need of a back fitted to bear burdens'.

§ 160. **sus vero quid habet praeter escam?** so Juvenal I 141 calls it *animal propter convivia natum* where see Mayor; cf. Clem. Al. *Strom.* VII 6 § 34 p. 849 P. *οὐ κακῶς ὁ κωμικὸς Πλάτων φησίν, τῶν γὰρ τετραπόδων οὐδὲν ἀποκτείνειν ἔδει ἡμᾶς τὸ λοιπὸν πλὴν ὑῶν, τὰ γὰρ κρέα ἥδιστ' ἔχουσι, κοὐδὲν ἀφ' ὑὸς γίγνεται πλὴν ὕστριχες καὶ πηλὸς ἡμῖν καὶ βοή. ὅθεν καὶ ὁ Αἴσωπος οὐ κακῶς ἔφη τοὺς ὗς κεκραγέναι μέγιστον, συνειδέναι γὰρ ἑαυτοῖς εἰς οὐδὲν ἄλλο χρησίμοις, ὅταν ἕλκωνται, ἢ πλὴν εἰς τὴν θυσίαν. διὸ καὶ Κλεάνθης φησὶν ἀνθ' ἁλῶν αὐτοὺς ἔχειν τὴν ψυχήν, ἵνα μὴ σαπῇ τὰ κρέα.* This witticism, which C. is probably right in attributing to Chrysippus, is frequently referred to, as by Varro *R. R.* II 4 § 10, *Fin.* V 38 *omnium rerum quae aut sine animo sunt aut non multo secus, earum summum bonum in corpore est; ut non inscite illud dictum videatur in sue, animum illi pecudi datum pro sale, ne putresceret*, Plut. *Qu. Conv.* p. 685 C *ἡ τῶν ἁλῶν φύσις τὰ νεκρὰ παραλαμβάνουσα καὶ μιμουμένη τὸ τῆς ψυχῆς ἔργον ἀντιλαμβάνεται τῶν φερομένων ἐπὶ τὴν φθοράν, διόπερ τῶν Στωικῶν ἔνιοι τὴν ὗν σάρκα νεκρὰν γενονέναι λέγουσιν, τῆς ψυχῆς ὥσπερ ἁλῶν παρεσπαρμένης ὑπὲρ τοῦ διαμένειν*, Porphyr. *Abstin.* I 13, III 20 (cited below), Plin. *N. H.* VIII 51. Philo *Mund. Op.* 21 makes the same remark of fishes. The saying was a favorite with the Elizabethan dramatists, see B. Jonson *Bartholomew Fair* A. 4 Sc. 1 with Gifford's n.

*πρόνοια* **Epicurea**: the whole passage seems borrowed (by Posidonius, we may suppose) from Chrysippus, see Porphyr. *Abst.* III 20 *ἀλλ' ἐκεῖνο, νὴ Δία τοῦ Χρυσίππου πιθανὸν ἦν, ὡς ἡμᾶς αὐτῶν καὶ ἀλλήλων οἱ θεοὶ χάριν ἐποιήσαντο, ἡμῶν δὲ τὰ ζῷα, συμπολεμεῖν μὲν ἵππους καὶ συνθηρεύειν κύνας, ἀνδρείας δὲ γυμνάσια παρδάλεις καὶ ἄρκτους καὶ λέοντας. ἡ δὲ ὗς, ἐνταῦθα γάρ ἐστιν τῶν χαρίτων τὸ ἥδιστον, οὐ δι' ἄλλο τι πλὴν θύεσθαι ἐγεγόνει, καὶ τῇ σαρκὶ τὴν ψυχὴν ὁ θεὸς οἷον ἅλας ἐνέμιξεν, εὐοψίαν ἡμῖν μηχανώμενος, ὅπως δὲ ζωμοῦ καὶ παραδειπνίων ἀφθονίαν ἔχωμεν, ὄστρεά τε παντοδαπὰ καὶ πορφύρας καὶ ἀκαλήφας καὶ γένη πτηνῶν ποικίλα παρεσκεύασεν, οὐκ ἀλλαχόθεν ἀλλ' ὡς αὑτοῦ μέγα μέρος ἐνταῦθα τρέψας εἰς γλυκυθυμίας κ.τ.λ.* See also Philo *Prov.* II 97 where this is made an actual objection to Providence *partes naturae paene omnes plenae sunt rebus voluptati servientibus...nec ea solum quae ad usum cibi et potus sed etiam ad delicias ambitiosas referuntur* foll.

**atque eae ne caperentur—sollertia**: 'they could not even be taken (let alone cooking), if it were not through human skill'. I am rather inclined to think this an interpolation. It is quite unnecessary and seems to be imitated from § 158. Moreover it obscures the force of the following **quamquam**, which I think can only refer to *percipitur voluptas* 'though we may allow another end in birds besides our pleasure, viz. to instruct us in the will of Heaven'.

**alites et oscines**: Serv. ad *Aen.* III 361 *aves aut oscines sunt aut praepetes (=alites); oscines quae ore futura praedicunt, ab 'os' et 'cano'; praepetes quae volatu augurium significant*; cf. *Divin.* I 120.

§ 161. **immanes et feras**: coupled as in I 62.

**exerceamur in venando**: see Porphyr. quoted above, Philo *Prov.* II 103, Xen. *Cyrop.* I 6 § 28, *Venat.* 12, *Rep. Lac.* 4.

**ex corporibus remedia**: cf. Philo *Prov.* II 104 speaking of venomous reptiles 'physicians have obtained powerful remedies from their bodies', Nemesius I 25 (p. 62 Matth.) *ἀλλὰ καὶ τὰ δηλητηριώδη πρὸς οἰκείαν ὠφέλειαν ὁ λόγος καρποῦται. καταχρῆται γὰρ αὐτοῖς πρὸς θεραπείαν τῆς ἐξ αὐτῶν ἐκείνων βλάβης καὶ τῆς τῶν ἄλλων ἀρρωστημάτων ἰάσεως. τοιαῦταί τινές εἰσιν αἱ θηριακαὶ καλούμεναι κατασκευαί, ἃς ὁ λόγος ἐπενόησεν ἵνα καὶ τούτων κρατῇ δι' αὐτῶν καὶ ὥσπερ ὑπὸ πολεμίων κρατηθέντων ὠφελοῖτο*, Dioscor. *π. ἰοβόλων* § 23 *αὐτός τε ὁ πλήξας σκορπίος λειοτριβηθεὶς καὶ ἐπιτεθεὶς τῷ πληχθέντι τόπῳ τῆς ἰδίας πληγῆς γίνεται βοηθὸς κατά τινα ἀντιπάθειαν, ὡς ἔοικε*, ib. 25, 26, Lactant. *Ira* 13 *viperam ferunt exustam in cineremque dilapsam mederi ejusdem bestiae morsui;* L. however objects to this Stoic doctrine. Pliny has a whole book on the subject of animal remedies (*N. H.* xxx). See Trench *Select Glossary* under *Treacle* (der. from *θηριακή*).

**eliciamus**: see above § 151 n.

**periclitatio**: *ἅπ. λεγ.*

**animis tamquam oculis**: cf. I 19 n., II 99 (the converse) *ut animis sic oculis* III 20.

**spatia immensa camporum, vestitus montium**: cf. § 98 *riparum vestitus, immensitates camporum*, § 132 *montes vestiti.*

**pecudum pastus**: in apposition to what precedes, cf. § 99 where the same phrase occurs in a somewhat different sense.

**tum incredibili cursus maritimos celeritate**: 'ships carried along with extraordinary rapidity', cf. a less exaggerated statement in § 131 *maritimi cursus celeres et certi.* **tum** introduces the second glance, on the sea, as opposed to *jam* the first glance on the land.

D f. *So the treasures of the mineral kingdom are open to man alone.* § 162.

§ 162. **nec vero—sed etiam**: ellipsis of *tantum* as in *Lael.* 68 *nec vero in hoc quod est animal, sed in iis etiam quae sunt inanima, consuetudo valet.* Dav. quotes several exx. of a similar Greek construction, as Longin. 35 *οὐ γὰρ μεγέθει τῶν ἀρετῶν ἀλλὰ καὶ τῷ πλήθει πολὺ λειπόμεθα.*

**supra terram—latet utilitas**: for other exx. of zeugma see *Fin.* II 88 *uterque fruitur voluptate, at enim hic etiam dolore* with Madv.'s n. and Zumpt § 775, also cases of subaudition, such as we have in I 71, where *nego* suggests a following *dico.* On Abstr. for Concr. (*utilitas rerum* for *res utiles*) see Index. **in intimis tenebris**: cf. § 98 *reconditas venas.*

D g. *Divination is a blessing granted to man alone.* §§ 162, 163.

Ch. LXV. **Carneades libenter in Stoicos invehebatur**: cf. *Tusc.* V 83 (*Stoicos*) *quos studiosissime semper refellebat et contra quorum disciplinam ingenium ejus exarserat;* ib. IV 55. The anti-Stoic argument in the following book and perhaps that in the *De Divinatione* also are taken from Carneades, see vol. I *Introduction* p. xxix.

**irridet Epicurus**: cf. I 55, *Div.* II 39 *doleo tantam Stoicos nostros Epicureis irridendi sui facultatem dedisse*, and Diog. L. x 135 *Epicurus* μαντικὴν πᾶσαν ἀναιρεῖ.

**divinatio**: here too, as in so much of this treatise, the authority whom C. follows treads in the steps of Xen. *Mem.* I 4 § 15, IV 3 § 12.

§ 163. **multa provident**: simply 'foresee' as in *Div.* II 16 *medicus morbum ingravescentem ratione providet, tempestates gubernator*, and § 25.

**ex sententia atque utilitate**: cf. *Tusc.* IV 14 *ex usu esse; Invent.* I 68 *ex utilitate interpretari; Fin.* II 34 *e virtute, id est honeste, vivere;* V 26 *aliud equo est e natura, aliud bovi.*

**sive vis sive ars sive natura**: two kinds of divination were distinguished by the ancients; see above I 55 n., and *Div.* I 11 *duo sunt divinandi genera, quorum alterum artis est, alterum naturae;* the 1st is that practised by *haruspices* &c., the 2nd is subdivided into prophetic frenzy (*vis*, cf. *Div.* I 80 *illa concitatio declarat vim in animis esse divinam*, also §§ 34, 66 and 79) and vision (ib. 4) *cum duobus modis animi sine ratione et scientia, motu ipsi suo soluto ac libero, incitarentur, uno furente, altero somniante,...haec enim duo naturalia putantur.* The division seems to be as old as Chrysippus (Diog. L. VII 149); the Stoics themselves traced it back to Homer (Ps. Plut. *Vit. Hom.* p. 1238).

**nec alii cuiquam data**: this was not conceded by all the opponents of the Stoics. Plutarch (*Sol. An.* p. 976) mentions a crocodile which presignified the death of King Ptolemy, ὥστε μηδὲ τῆς πολυτιμήτου μαντικῆς ἄμοιρον εἶναι τὸ τῶν ἐνύδρων γένος.

D h. *Cumulative force of these proofs.* § 163.

**debebant**: the Imp. is more forcible than the Fut. read by some edd., 'if the arguments taken separately do not impress you, still they ought to have done so from their collective weight'.

D i. *The care of the Gods extends not merely to mankind in general, or to particular nations, but to individual men. No man was ever wise or virtuous without the Divine help.* §§ 164—167.

§ 164. **singulis provideri**: see above § 75 *dico providentia deorum mundum et omnes mundi partes et initio constitutas esse et omni tempore administrari;* and Plato's argument (*Leg.* x 900 foll.) to prove ὡς ἐπιμελεῖς σμικρῶν εἰσὶ θεοὶ οὐχ ἧττον ἢ τῶν μεγέθει διαφερόντων: Epictetus (*Diss.* I 12) distinguishes three classes of believers in Providence, (1) those who believe that the Gods take thought for τῶν μεγάλων καὶ οὐρανίων, τῶν δ' ἐπὶ γῆς μηδενός, (2) those who believe they take thought both for earth and heaven εἰς κοινὸν δὲ μόνον, καὶ οὐχὶ δὲ κατ' ἰδίαν ἑκάστου, (3) those who like Ulysses and Socrates can say οὐδέ σε λήθω κινύμενος (*Il.* x 279, cf. Xen. *Mem.* I 4 § 14); so Justin Martyr (*Dial. c. Tryph.* p. 218) 'most philosophers try to persuade us ὡς τοῦ μὲν σύμπαντος καὶ αὐτῶν τῶν γενῶν καὶ εἰδῶν ἐπιμελεῖται θεός, ἐμοῦ δὲ καὶ σοῦ οὐκ ἔτι καὶ τῶν καθ' ἕκαστα'. M. Aurelius, while he

records in grateful terms the special providences of his own life (I 17), will not allow that even the more general view of Providence is incompatible with religious hope (VI 44) *εἰ δὲ μὴ ἐβουλεύσαντο κατ' ἰδίαν περὶ ἐμοῦ, περί γε τῶν κοινῶν πάντως ἐβουλεύσαντο, οἷς κατ' ἐπακολούθησιν καὶ ταῦτα συμβαίνοντα ἀσπάζεσθαι καὶ στέργειν ὀφείλω.*

**contrahere universitatem generis humani**: 'we may narrow the scope of our argument in regard to humanity at large', lit. 'we may bring within a narrower compass the whole (i.e. what affects the whole) of mankind'.

Ch. LXVI. **ab hujusce terrae continuatione**: Abstr. for Concr. 'from the continent which we inhabit'.

§ 165. **sin autem his consulunt**: *sin autem*, like *quod si*, introduces a further step in the sorites, as in *Off.* III 55, and below III 46 *quo modo potes, si Latonam deam putas, Hecatam non putare? sin haec dea est, cur non Eumenides?* ib. § 52 *si est Ceres a gerendo, terra ipsa dea est: sin terra, mare etiam.* For the inverse sorites see III 93.

**magnam quandam insulam**: cf. *R. P.* VI 21 *omnis enim terra quae colitur a vobis angusta verticibus* (i.e. in longitude), *lateribus latior* (i.e. in latitude), *parva quaedam insula est, circumfusa illo mari, quod Atlanticum, quod magnum, quem Oceanum appellatis.* The idea was first started by Plato *Phaedo* p. 109 B, 'the earth *πάμμεγά τι εἶναι, καὶ ἡμᾶς οἰκεῖν, τοὺς μέχρι Ἡρακλείων στηλῶν ἀπὸ Φάσιδος, ἐν σμικρῷ τινι μορίῳ, καὶ ἄλλους ἄλλοθι πολλοὺς ἐν πολλοῖς τοιούτοις τόποις οἰκεῖν*'. In the pseudo-Aristotelian *de Mundo* the theory is much more developed; thus in 3 § 2 we read *ἡ σύμπασα οἰκουμένη μία νῆσός ἐστιν ὑπὸ τῆς Ἀτλαντικῆς καλουμένης θαλάσσης περιῤῥεομένη*, ib. § 13 *πλάτος μέν ἐστι κατὰ τὸ βαθύτατον τῆς ἠπείρου βραχὺ ἀποδέον τετρακισμυρίων σταδίων... μῆκος δὲ περὶ ἑπτακισμυρίους μάλιστα. διαιρεῖται δὲ εἴς τε Εὐρώπην καὶ Ἀσίαν καὶ Λιβύην*: ib. § 3 'it is probable that there are many other continents washed by other seas'. Cleomedes (I 2), no doubt following Posidonius, says 'there are four *οἰκουμέναι* in the earth, two in the northern temperate zone and two in the southern; those who live in that which is opposite to ours, in the northern hemisphere, are called our *περίοικοι*, those who are diametrically opposite to us are the *ἀντίποδες*, those who lie directly to the south of us are the *ἄντοικοι*. Their existence is probable from reason, but not demonstrated by science'. See also Strabo I 4 § 6, II 3 § 5, Plin. *N. H.* II 66, Bunbury *Anc. Geog.* I p. 625.

[**Rhodum**: the collocation of this by the side of Rome, Athens and Sparta is noticeable. Rhodes was famous and resembled Athens in three ways, (1) as having a free constitution, cf. *R. P.* I 47 *in libero autem populo, ut Rhodi, ut Athenis*, ib. III 48, (2) as a great naval power, *Manil.* 54 *non Atheniensium...non Karthaginiensium...non Rhodiorum, quorum usque ad nostram memoriam disciplina navalis et gloria remansit*, (3) as a university town especially famed for the study of oratory, *Brut.* 316, *Fam.* II 17 § 1, Suet. *Tib.* 11 *cum circa scholas et auditoria professorum assiduus esset.* Panaetius was a native of Rhodes, and Posidonius long resided there as head of the Stoic school. R.]

**earum urbium—singulos diligunt:** I take this to be an Inclusive ('partitive') Gen. depending on the idea of 'citizen' involved in the sentence, not on the word *singulos* by itself.

**Curium:** a similar list of Roman worthies is given in the *pro Plancio* 60, *Tusc.* I 110.

**juvante deo:** cf. Plato *Meno* fin. *θείᾳ μοίρᾳ φαίνεται παραγιγνομένη ἡ ἀρετὴ οἷς παραγίγνεται*, and n. on § 167 *nemo vir magnus*. For the opposite view see III 86 n.

§ 166. **deos periculorum comites:** Sext. Emp. IX 63 *πάρεστι τὴν ποιητικὴν ὁρᾶν μηδὲν μέγα μηδὲ λαμπρὸν ἐκφέρουσαν, ἐν ᾧ μὴ θεός ἐστιν ὁ τὴν ἐξουσίαν καὶ τὸ κράτος τῶν γινομένων πραγμάτων ἐνημμένος* ('who has made dependent on himself'), *ὥσπερ καὶ τῷ ποιητῇ Ὁμήρῳ κατὰ τὸν ἀναγραφέντα τῶν Ἑλλήνων καὶ βαρβάρων πόλεμον.* The adventures of Odysseus and Diomede are full of the intervention of Athene, see on the special providences in Homer, Nägelsb. *H. T.* I § 26 p. 29 foll.

**saepe praesentiae:** see § 14 n. on *praeter naturam portentis*, and cf. Ter. *Andr.* 175 *eri semper lenitas*, Plaut. *Pers.* 385 *non tu nunc hominum mores vides*, 2 *Cat.* 27 *mea lenitas adhuc.* **quales supra:** in § 5.

**usus ita notavit ut artem efficeret:** see the account of the origin of divination in C.'s treatise on the subject (I § 109) *affert vetustas omnibus in rebus longinqua observatione incredibilem scientiam* foll.

§ 167. **nemo vir magnus sine afflatu.** All this latter part of the Stoic argument is cruelly cut down. The present sentence does not join on well with what precedes (in which we are told of one of the ways in which God assists men, but not of this particular way), nor with what follows (if we keep the MS order), which refers rather to the general subject of divine government. That genius is owing to divine inspiration was the doctrine of all the Platonic schools, as well as of Democritus, see *Tusc.* I 64 *mihi vero ne haec quidem notiora et illustriora carere vi divina videntur, ut ego aut poetam grave plenumque carmen sine caelesti aliquo mentis instinctu putem fundere, aut eloquentiam sine majore quadam vi fluere; Divin.* I 80 *negat sine furore Democritus quemquam poetam magnum esse posse; Orat.* II 194 *saepe audivi poetam bonum neminem (id quod a Democrito et Platone in scriptis relictum esse dicunt) sine inflammatione animorum exsistere posse et sine quodam affectu furoris;* cf. Plato *Phaedr.* 244 A *τὰ μέγιστα τῶν ἀγαθῶν ἡμῖν γίγνεται διὰ μανίας θείᾳ μέντοι δόσει διδομένης*, 245 A, *Meno* 99 C, *Ion* 533 E. Seneca utters a larger truth when he says (*Ep.* 41) *bonus vir sine deo nemo est: an potest aliquis supra fortunam nisi ab illo adjutus exsurgere? ille dat consilia magnifica et erecta; in unoquoque virorum bonorum, quis deus incertum est, habitat deus;* see also *Ep.* 73 § 15, cited by Zeller IV p. 727. But *magnus* here and below is probably synonymous with *bonus*, both being used for the Stoic 'sage'.

D k. *External misfortune is no sign of the Divine displeasure or indifference: it is altogether insignificant, and to the sage all things turn out for good.* § 167.

**magnis...copiis**: I have transposed this sentence from the end of the paragraph, not only because it is itself better placed so, continuing the proofs of divine favour shown to the good; but mainly because it is impossible to find a reference for *refellendum*, if we follow the MS order, by which the sentence beginning *nec vero* comes immediately after *umquam fuit.* Madvig considers that something has been lost. For the argument cf. III 79 foll.

**magnis viris prosperae res**: the Stoics held that all things must work together for good to those who were dear to God. The only real good was virtue, and whatever might be a man's outward circumstances, they must always afford scope for virtuous action to the good and wise. See Seneca's treatise on Providence, and *Epist.* 66 § 15 *virtutem materia non mutat: nec pejorem facit dura ac difficilis, nec meliorem hilaris ac laeta.*

**siquidem satis...dictum est**: we have here a subjective condition joined to an objective statement. It would have been more correct to have introduced the former clause with *fateamur necesse est* or some such phrase; cf. § 149 *incredibile est si attenderis.* Examples of similar conditions will be found in Roby, *Gr.* § 1573.

**a Socrate**: as, for instance, in the *Apol.* 41 D οὐκ ἔστιν ἀνδρὶ ἀγαθῷ κακὸν οὐδὲν οὔτε ζῶντι οὔτε τελευτήσαντι, οὐδὲ ἀμελεῖται ὑπὸ θεῶν τὰ τούτου πράγματα, and in the encomium on Justice in the *Republic.*

**principe philosophiae**: cf. § 51 *princeps investigandae veritatis, Orat.* III 63 *eloquentiae principem, Quint. Fr.* I § 10 *princeps ingenii et doctrinae Plato.*

**magna di curant, parva neglegunt**: so Eurip. fr. 945[2] Dind. (cited by Plut. *Mor.* p. 811) τῶν ἄγαν γὰρ ἅπτεται θεός, τὰ μικρὰ δ' εἰς τύχην ἀνεὶς ἐᾷ, and the Ovidian *non vacat exiguis rebus adesse Jovi* (*Trist.* II 216); so too Chrysippus (ap. Plut. *Sto. Rep.* 37 p. 1051) ἐν γοῦν τῷ τρίτῳ περὶ Οὐσίας μνησθεὶς ὅτι συμβαίνει τινὰ τοῖς καλοῖς καὶ ἀγαθοῖς τοιαῦτα (i.e. evil), πότερόν, φησιν, ἀμελουμένων τινῶν, καθάπερ ἐν οἰκίαις μείζοσι παραπίπτει τινὰ πίτυρα καὶ ποσοὶ πυροί τινες, τῶν ὅλων εὖ οἰκονομουμένων; But how is this to be reconciled with the previous doctrine that God cares for the individual, that none are neglected by him, or, as it is more generally stated by Chrysippus (ib. c. 34), τῆς κοινῆς φύσεως εἰς πάντα διατεινούσης δεήσει πᾶν τὸ ὁπωσοῦν γιγνόμενον ἐν τῷ ὅλῳ καὶ τῶν μορίων ὁτῳοῦν κατ' ἐκείνην γενέσθαι καὶ τὸν ἐκείνης λόγον κατὰ τὸ ἑξῆς ἀκωλύτως, διὰ τὸ μήτ' ἔξωθεν εἶναι τὸ ἐνστησόμενον τῇ οἰκονομίᾳ, μήτε τῶν μερῶν μηδὲν ἔχειν ὅπως κινηθήσεται ἢ σχήσει ἄλλως ἢ κατὰ τὴν κοινὴν φύσιν? The two doctrines are correlated by Philo *Prov.* 99 (cited by Euseb. *P. E.* VIII 14 § 35), 'God does not send storms in order to cause shipwreck, but for the general good, to purify the air; so the praetor who adds to the luxury of the games by showering the arena with perfumes, may make the ground slippery and dirty, but that is not his object, it is an ἐπακολούθημα, an incidental result'. Compare Zeller IV p. 174 foll. and the remarks in Butler's *Analogy* on the government of the world by general laws and the individual hardships which may arise therefrom. There is no neglect therefore; the best possible course is chosen, but that

involves apparent evil, cf. Chrysippus (ap. Plut. *St. Rep.* 35) *γίνεται γὰρ αὐτή πως (ἡ κακία) κατὰ τὸν τῆς φύσεως λόγον, καὶ ἵνα οὕτως εἴπω οὐκ ἀχρήστως γίνεται πρὸς τὰ ὅλα, οὐδὲ γὰρ ἂν τἀγαθὰ ἦν*, but even this evil itself is changed to good, in the words of Cleanthes (*Hymn.* 18) *ἀλλὰ σὺ καὶ τὰ περισσὰ ἐπίστασαι ἄρτια θεῖναι.* Cic. here confines himself to the easier problem of physical evil, which the Stoics regarded as in itself indifferent, but capable of becoming good according to its use; see above on *magnis viris prosperae res.* Socrates pronounced strongly against the idea of any negligence on the part of God, Xen. *Mem.* I 4 § 18 *γνώσῃ τὸ θεῖον ὅτι τοσοῦτον καὶ τοιοῦτόν ἐστιν ὥσθ' ἅμα πάντα ὁρᾶν καὶ πάντα ἀκούειν καὶ πανταχοῦ παρεῖναι καὶ ἅμα πάντων ἐπιμελεῖσθαι*, and so Plato *Leg.* X 902 E *μὴ τοίνυν τόν γε θεὸν ἀξιώσωμέν ποτε θνητῶν δημιουργῶν φαυλότερον, οἳ τὰ προσήκοντα αὐτοῖς ἔργα, ὅσῳπερ ἂν ἀμείνους ὦσι, τόσῳ ἀκριβέστερα καὶ τελεώτερα μιᾷ τέχνῃ σμικρὰ καὶ μεγάλα ἀπεργάζονται, τὸν δὲ θεὸν ὄντα τε σοφώτατον βουλόμενόν τ' ἐπιμελεῖσθαι καὶ δυνάμενον, ὧν μὲν ῥᾷον ἦν ἐπιμεληθῆναι, σμικρῶν ὄντων, μηδαμῇ ἐπιμελεῖσθαι, καθάπερ ἀργὸν ἢ δειλόν τινα διὰ πόνους ῥᾳθυμοῦντα, τῶν δὲ μεγάλων.* Compare the words of Christ 'the hairs of your head are all numbered', 'not a sparrow falleth to the ground without your Father'; and Augustine *Conf.* III 11 *Bonus Omnipotens sic curat universos tamquam singulos, sic singulos tamquam universos.* On the other hand Jerome *ad Habak.* I approaches to the doctrine of the text *absurdum esse ad hoc Dei deducere majestatem ut sciat per momenta singula quot nascantur culices...nec enim aquila capit muscas, nec elephantus mures venatur, nec de minimis curat praetor.*

*Conclusion.* § 168.

Ch. LXVII § 168. **si me audias—agas**: a less sanguine form of expression than the Fut. *si me audies* (in familiar colloquy *sodes* as in *Att.* VII 3 § 11) *vitabis inimicitias Fam.* II 18.

**et principem civem et pontificem**: see above § 2 *et pontificis et Cottae,* III 5, *Brut.* 80 *L. Paulus personam principis civis facile dicendo tuebatur.*

**in utramque partem disputare**: *Divin.* II 150 *cum proprium sit Academiae judicium suum nullum interponere, ea probare quae simillima veri videantur, conferre causas, et quid in quamque sententiam dici possit expromere,* cf. nn. on I 4, 5, 6, 11, 13.

**amplificavit Academia**: cf. *Orat.* I 53, 60, 87, *Tusc.* II 9, *Orator* 12, *Parad.* praef., *Fat.* 3 *orator subtilitatem ab Academia mutuatur et ei vicissim reddit ubertatem orationis.*

**mala consuetudo est contra deos disputandi**: *consuetudo* has a double use, being understood as Subject with *disputandi*, as in *Off.* III 6 *discendi labor est potius quam voluptas*, Quintil. IV 5 § 3 *alioqui quae tam manifesta et lucida est ratio quam rectae partitionis?* Sometimes the Inf. is used instead of the Gerund, as in *Ac.* II 17 *nec esse ullam rationem disputare cum his.*

[**ex animo**: cf. Munro on Lucr. III 914, Cic. *Phil.* XI 34, *Fam.* XII 27, Sen. *ep.* 78 § 19, 96 § 2, Qu. Cic. *prov. cons.* § 18, Gell. XIV 1 § 36. J. E. B. M.]

# MR SWAINSON'S COLLATIONS OF ENGLISH MSS.

As in my former volume, I have printed in full Mr Swainson's collation of the Burney MS (**B**), but have only given selected readings from his other collations, with occasional additions from my own inspection of the Museum MSS. I have also given the more important readings for O U and Y collated by myself, and a full collation of the Merton MS (called 'Oxf. o' in the former volume, here simply 'Oxf.'). I have further compared any readings of Orelli's or Heindorf's MSS which, without being of sufficient importance to print under the text, were yet of interest as throwing light on the relation between different MSS, e.g. between **B** and Orelli's C, between Cod. Glog. (**G**) and **H**, Cod. Red. and **N**, above all between Oxf. and Orelli's V. In all such cases I have printed the reference to the foreign MS in square brackets. For the sake of convenience I subjoin an explanation of symbols.

**B.** Burney MS no. 148, of the 13th century.
**H.** Harleian MS 2465, late 15th cent.
**I.** Harl. MS 2511, 15th cent.
**L.** Harl. MS 4662, late 15th cent.
**M.** Harl. MS 5114, latter part of 15th cent.
**N.** Additional MSS 11932, middle of 15th cent.
**O.** Additional MSS 19586, end of 14th cent.
**C.** Cambridge MS 790 Dd. XIII. 2, 15th cent.
**R.** Roman edition of 1471.
**V.** Venice edition of 1471. $\mathbf{V}_1$. Corrections in the Grylls copy.
U. Codex Uffenbachianus, 15th cent. belonging to S. Allen, Esq.
Y. Another 15th century codex belonging to Mr Allen.
Oxf. The Merton MS of the 12th cent.

# COLLATIONS OF ENGLISH MSS.

## BOOK II.

I. *Quae*] *Haec* **HN.** *sim*] **Oxf. BH,** *sum* **ILMNCVTO.** *indisertum*] 1
*indesertum* **BN** [Or.'s $A^1$]. *rhetorem*] *rehetorem* **B,** *et pectorem* **N.** *corona—*
*defuerunt*] *coronam—deferunt* **N.** *audiamus*] *adeamus* **LT.** *equidem*] 2
om. **H,** *inquit* **RT** [**Asc. G**]. *nostri*] *nostrum* **B.** *aveo*] $V_1$, *habeo* **ZTU**
**Oxf.,** *ab eo* **O.** *Cotta*] om. **V.** *quid*] **OB,** *quod* **MCRV Oxf.** *initio*]
**OB** +, *in initio* **HN.** *dixerim*] **Oxf. OB** +, *dixerimus* **HL.** *liqueret*] *liceret* **H.** 3
*tam*] *tum* **B.** *ab iis*] **L,** *ab his* **BHV Oxf.,** *ab hiis* **O.** *hoc*] *in hoc* **L.**
*et iis*] **HL,** *et his* **B Oxf.,** *etiam* **U,** *et hiis* **O.** *anteponendae*] $V_1$, *antepo-*
*nenda* **Z Oxf.**

II. *Lucilius*] *balbus* **C.** *oratione*] *orationem* **B.** *qui*] *quid* **H,** 4
*quo* $V_1$**U.** *sublime*] **Z,** except *sublumen* **N.** *candens*] *cadens* **BNC** [Or.'s **C**].
*quem*] *quod* **H.** *nutu*] $VT^2$, *motu* **Oxf. UO** others, "*al. motu*" $V_1$. *haud*]
*aut* **BH** [Or.'s $B^1$]. *sol*] *solus* **R.** *dubitare*] *qui d.* **THRV** text $V_1$. *Qui*] 5
*quid* **Oxf. UZ,** except *quod* **N.** *animis*] *animo* **HMV.** *saeclis*] **BM,** *sedis* **C,**
*saeculis* others. *inueterare*] **Z Oxf. TU.** *Quis*] *Quod si* **B.** *putat*]
*putet* **T.** *quaeve*] *quae uero* **C.** *quondam*] *condam* **L** [Or.'s **C**].
*opinionis*] *opiniones* **B,** *opinione* **H,** *opinionum* **Oxf. O** others. *itaque*] *idque* **U.**
*confirmat*] *confirmant* **B.** *sanctitates*] *sanitates* **R.** *nec*] *non* **HC.** *et* 6
*praesentes*] **H,** *praesentiam* **MNCRV Oxf.,** *et praesentiam* **B,** *etiam praesentiam*
**TUOL.** *saepe di vim suam*] *saepe dii uim* **H,** *saepe divi suam* **Oxf. B,** *saepe*
*divi sui* **MRV,** *saepe dii* **N,** *suam saepe divi* **LCT,** *saepe divi* **U,** *suam divinitatem* **O.**
*et apud*] **Oxf.** $O^2$, *est apud* **UB** [Or.'s **CE**], *et* om. $O^1$**HV,** rest. $V_1$. *bello*] *bellum* **V.**
*A.*] *autem* **H,** *aulus* **C.** *Persen*] *Persem* **HNCV.** *P.*] *Publilius* **B** [Or.'s
**AB,** *Publius* Or.'s **C**], *popilius* **HI,** *Pompilius* **L.** *Vatinius*] *Vatienus* **BLR,**
*uatientus* **H,** *lucienus* **I,** *uacienus* **MCV.** *cum*] *in* **ILT,** *cum in* **U** [**El.** of Dav.].
*Persen*] *Persem* **B.** *die captum*] *captum die* **Oxf.** *senatuique nuntiavis-*
*set*] *senatui nuntiasset* **BLO,** *sen. nuntiauisset* **H,** *senatui nuntiavit et* **Oxf. TM,**
*senatui denuntiavit* **U.** *Crotoniatas*] *Crotoniates* **H,** *Codro matres* **I.** *eam*]

om. H. *Olympiae*] *Olimpiae* BC [Or.'s C]. *memoriae*] *memoria* MNR.
*proditum*] *traditum* LT. *non aut*] Davies, *aut non* U Oxf. BIMCRV, *aut* om.
HLN. *praesentes esse*] *esse praesentes* U. *coegerunt*] *cogerent* O.

7 III. *Praedictiones*] *predicationes* B cf. § 162, transposes with *praesensiones* C.
*quae sunt futura*] C, *quae sint* Oxf. TOBIM, *quae sunt* HN, *quae sunt sint* L.
*dicuntur*] *dicunt* B. [*fabularum, fabulosorum* Asc.] *repudiarent*] Oxf. TOBHM,
*repudiaret* N, Baiter. *exemplis*] om. Oxf. *docti*] *doctim* B [*docti in* Or.'s C],
*edocti* C. *comprobabimus*] B, *comprobauimus* Oxf. UOHLMNCRV. *Claudii*] O,
*clodi* Oxf. BM, *clodii* HCR. *primo—cum*] om. L. *qui etiam—inridens*] om. H.
*aquam*] *quam* B. After *ut biberent* Oxf. inserts from § 10 *commemorare—*
*Scipione*. *populo Romano*] *p. R.* BHO Oxf., *rei publicae* N, *r. p.* V. *amisit*]
*ammisit* B, *amissit* H. *Claudius*] *dodius* B [Or.'s C], *P. Claudius* V, *Clo-*
*dius* U. *condemnatus*] *condempnatus* BC. *sibi ipse*] *sibi* Oxf. T.
8 *C.*] *Gaium* C. *Flaminium*] *flaminum* B. *Caelius*] *Coaelius* B, *Caelium* H.
*Trasimenum*] V, *transumen* B, *Transimenum* H, *Transimemnum* M, *Transime-*
*mium* C, *Thrasimenum* R. *scribit*] *scripsit* T. *et si conferre*] L goes on
§ 98 *earum rerum quas*—§ 156 *quae cum maxima*, then returns to § 16 *etenim si*
*di*—§ 86 *efferant aliquid*, then again § 156 *largitate*—end of book. §§ 8—16
*volumus nostra—illa conficiuntur* are inserted in I 103 after *altissima ora reddatur*
*bestiarum*, then come a few words from II 156 *ea ferarumne—videtur*, and then
II 86 *ex se perfectiores habere naturas*—§ 98 *pulchritudinem*, after which I 103—
II 8. Cf. below § 16. *etiam*] om. H. *reperiemur*] *reperirentur* U.
9 *id est cultu deorum*] om. L, *uel cultu d.* N. *multo*] om. HC. *Atti Navii*]
*attii naii* H, *ad tinavii* Oxf., *Antimanii* N, *actii nauii* CRV. *Navii lituus*]
om. I, *Nav. lucius* L, *Nav. litus* M. *quo*] *de quo* O. *investigandam*] CO[1], *in-*
*uestigandum* Oxf. O[2] others, except *inuestiganda* N. *suem*] *sues* BO, *suam* L,
*sit* N, *uvam* Davies in note. *regiones*] *religiones* Oxf. BC, *in regiones* LNO.
*vineae*] *uineam* LNO. *in his bella*] *in iis bellis* MNRV, *et in his bella* C.
*peremnia*] *perennia* OBRV, *peremia* H, *perhennia* C Oxf. *nulla cum viri*]
10 Schom., *nulli uiri* Oxf. Z, except *nulla uiri* V. *gerere*] *gere* B. *fuit*]
*fuerit* B [Or.'s C]. *re publica*] *p. R.* B. *devoverent*] Oxf. BHM, *deuo-*
*tarent* ILO. *Sibyllinis*] *sibillinis* B Oxf., *sublimis* N, *sibilinis* C, *sybillinis* R,
*sibylinis* V. *haruspicum*] *hauriuspicum* B [*haurupicum* Or.'s C], *aruspicum*
HCRV text $V_1$, *et haruspicum* O. *commemorare—Scipione*] om. Oxf. *con-*
*firmentur*] *confirmantur* RV text $V_1$.

IV. *Etruscorum*] *etruscorum et* TBCRO, *aetruscorum et* H, *hetruscorum* V.
*haruspicum*] [*haur.* Or.'s A], *aur.* BC [Or.'s C], *ar.* R. *Ti. Gracchus*] *to-*
*grareus* Oxf. *Ti.*] *tiberius* HCT, *Ty.* R. *Gracchus*] *grachus* B, *grac-*
*cus* V. *consul*] *cos* M, *quos* BH, om. LNCO, *eos* V Oxf., *coss* $V_1$. *crearet*]
*recrearet* Oxf. TOBHLMNRV, text $V_1$. *rogatorum*] MRV, *rogator* $BV_1$, *recreator*
HN, *rog. recreator* (with *al* written above *recreator*) O, *regrator* L. *mortuus*
*Gracchus*] *graccus mortuus* Oxf. *quos ad soleret* O, *quos adsoleret* Oxf., *quos*
*absolueret* N, *ad quos s.* C, *quos assoleret* V. *Haruspices*] *haur.* B [Or.'s C].
11 *incensus*] *impeditus* O, *impeditus incensus* L. *vero ego*] *ego uero* H, *uero*
*inquit ego* C. *auspicato*] *auspicator* N Oxf. TO. *populi Romani*] *pub-*
*licae rei* N, *R. p.* O. *jus*] om. Oxf. *ac*] *hac* B. *in hortis*] Lambi-
nus, *ortus* H, *in horto* C, *in ortos* V, *ortos* O, *hortos* others. *Scipionis*] *scipio-*

*nius* B, *spittionis* H. *transiret*] *transisset* B, *transiisset* V. *auspicari*]
*hausp.* BR [Or.'s AC]. *consules esse*] *quos esset* B, *quos esse* H, *vos esse*
Oxf., om. C, *eos esse* RV, text $V_1$. *ad senatum*] *ad sen. deferendam* C,
*ad sen. retulerunt* T. *senatus*] om. C. *ut*] *is* H, *censuit ut* O. *ab-*
*dicarent*] *abdicarant* T, *abdicarent se* O. *abdicaverunt Quae*] LON, *abdica-*
*ueruntque* Oxf. BMRV, *abdicaaerunt* C, *abdicaueruntque Quae* $V_1$. *sciam an*]
*an* om. H, *scientia* I, *scio an* M. *re publica religionem*] *r. p. religiones* Oxf., *re*
*p. religione* B [Or.'s C], *rei publicae religione* C. *summum*] *suum* T. *punctum*]
*puncto* HLCT. *religionem*] *maluere* adds C. *et innumerabilia*] Cod. 12
Glog., *et* om. Z Oxf. T. *ex*] *in* H. *At*] *an* B. *convalescunt*] *con-*
*valescant* T. *medicinae*] H, *medicina* Oxf. TO others. *In his—rerum*
*futurarum* in § 13 om. L. *summa*] *consensione* adds C. *innatum*] *renatum*
V, text $V_1$. *et in animo—varium est*] marg. only H. *insculptum*] *in-*
*scultum* B [*inscuptum* Or.'s $A^1$, *incultum* $B^1$], *sculptum* N.

V. *negat*] *negatur* B. *dixit*] om. H. *ceperimus*] *cepimus* Oxf. H 13
[*coeperimus* Or.'s A], *coperimus* C. *terrarum*] *rerum terrarum* MV. *ter-*
*rarum—tempestatibus* om. L. *terreret*] BO, *terret* [Or.'s C] HN, *terrerent* $V_1$. 14
*nivibus*] *niuis* B, om. H. *tum labibus*] Janus Gulielmius, *tum lapidibus*
BHMNRV Oxf., *tum lampadibus* (corr. *lapidibus*) O, *cum lapidibus* IL, *in lapidibus* C.
*naturam hominum*] *hom. nat.* Oxf. *naturam*] *natura* B. *iis*] *his* V Oxf.
*cincinnatas*] *cinnanatas* B, *cui crinitas* H, *cincamadas* I, *crinitas* MRV, *cicinatas*
N, *cinnatas* C. *esse*] om. C. *aequabilitatem*] *inaequab.* Oxf. MRV, 15
text $V_1$. *ipse*] om. T. *indicaret*] *indicat* C, *iudicare* V, text $V_1$, *indi-*
*caret ipsa* T. *ea*] after *indicaret* $HV_1$, om. MCRV. *gymnasium*] *gygna-*
*sium* Oxf. *videat*] *uiderit* $HV_1$. *rationem*] om. H, after *modum* C.
*esse*] om. O. *intellegat*] om. T. *et*] om. TO. *tantis motionibus*]
*multis motionibus* Oxf. *motionibus*] *mutationibus* H, *motibus* MCRV. *atque*
*tantarum*] om. T.

VI. *est*] om. MNRV. *repperisse*] *reperisse* BHMRV, *recepisse* L, *pepe-* 16
*risse* C. *est certe*] *est igitur certe* Oxf. *id quod illud*] *illud quod* T, *id*
*quod* H. *res*] *re* B, after *caelestes* C. *eae*] *esse* B, om. H, *haec* LC, *hae*
TV Oxf. *a quo*] Cod. Glog., *quo* Z Oxf. *homine—quam deum*] om. L.
*dixeris*] *dixerim* MRV. *deum*] after this Z '*largitate—uidetur*' from ch.
LXII 156, then '*ex sese perfectiores* (ch. XXIII 86)—*quae cum maxima*' LXII 156
(C and V insert before *ex sese* the connective interpolation *constat autem quae*
*gignit*), then '*Etenim si di* (here)—*intellegat*' or '*quae ecferant aliquid*' XXXIII
86, then '*largitate*' or '*Quid de uitibus*' &c. § 156 to the end of the book.
For L see § 8. In M there are marginal references showing the true order.
*se putet*] *putet se* Oxf. *desipientis*] *despicientis* H. *adrogantiae est*]
*arroganti esse* B, *arrogantia est* H. *non*] om. C. *videas*] *videris* U. 17
*illam et mustelis*] *etiam mustellis illam* H, *eam et mustellis* LV, *eam et mustelis* C.
*ergo*] BN Oxf., *uero* UTHLO, om. MRV. *mundi*] Oxf. omits the next seven
words, giving instead '*et tamen ex ipsa hominum sollertia est esse aliquam*' (cor-
rectly given below) and then proceeds *et magnitudinem*. *si tuum*] *situum*
H Oxf. *immortalium*] *mortalium* C. *desipere*] *dissipare* H. *supera*]
*superiora* HN. *etiam*] om. H. *urbibus*] *viribus* U. *sint*] BM, *sunt*
NOLCT. *existimare*] *extimare* B, *aestimare* H. *ait*] om. MCV. *Socrates*] 18

*quaerit* adds **C.** *spirabilem*] *spiritabilem* **N**, see Servius on Vergil, *Aen.* III 600 [and Or.'s readings in *Tusc.* I 40]. *habeamus*] Dav., *habemus* **TOBHILM CRV Oxf.**, *haberemus* **N.** *apparet*] **LMNO**, *appareat* **BHV Oxf.** *igni*] *igne* **HN Oxf.** *ab aere eo*] *abareo* (*e* written above second *a*) **B**, *ab igne eo* **T.** *quem*] *quod* **H.** *spiritu*] *spiritum* **Z Oxf.** *ducimus*] **M**, *dicimus* **Oxf. O** others.

VII. *plurimi*] **H$V_1$**, *plurimum* **Oxf. O** others. *Atqui*] *aut qui* **B**, *at quod* **H.** *nihil omnium rerum*] *o. r. n.* **U.** *praestabilius*] *praestantius* **N.** *pulchrius*] *pulcrius* **B** here. *ne cogitari*] **Oxf. $MO^1$**, *nec. c.* **$BLO^2$**, *negociari* **H.**
19 *haec*] *hoc* **HMRV**, *e* **Oxf.** *cognatio*] *cognitio* **THV** [Or.'s **$V^2$**], text **$V_1$**. *coget*] **Oxf. Z**, except *cogitet* **L.** *dicuntur a me*] *a me dicuntur* **T.** *a me*] *ameo* **B.** *dein*] **BC**, *deinde* others. *vicissim horrere terra*] *h. t. v.* **U**, *horrere terra* **H.** *discessus*] *dicessus* **Oxf.** *solstitiis*] *sollisticiis* **L**, *solsticium* **Oxf.**, *solstitio* **MNR** [Or.'s **$V^1$**], *soltitiis* **C.** *solst. brumisque*] *br. solstitiisque* **T.** *cognosci*]
20 *cognoscimus* **B**, om. **H.** *concinentibus*] *continentibus* **BHCV**, text **$V_1$**. *uberius*] *uberiis* **B.** *fusius*] *diffusius* **N.** *profluens*] *profluus* **HN** [Or.'s **$V^2$**]. *conclusa autem aqua*] *conclusus aut* **H**, *conclusam ante aquam* **N**, *conclusa autem a qua* **C.** *orationis flumine*] after *uicia* **C.** *convicia*] Davies, *uitia* **Z Oxf.**, *vicia* **T**, *convitia* Baiter, so Munro in Hor. S. I 5. 11, 7. 29, but see Corssen II 360. *conclusae*] *conclusa* **B** [Or.'s **C**]. *angustiae*] **Oxf.**, but *ipsa tutatur* below. *se ipsa*] *ipsam* **N**, *seipsam* **C.** *Zeno*] *Zenon* **L.**

21 VIII. *id melius*] *id.* om. **C.** After *non utitur* **Oxf.** om. *nihil autem—utitur* (eight words). *similiter beatum*] om. **C**, *deum idemque hoc modo quicquam beatum* **Oxf.** *enim haec meliora*] *haec meliora enim* **Oxf.** *ea*] om. **H.**
22 *nec*] *non* **MC Oxf.** *efficitur*] **BH**, *efficietur* **OMCV Oxf. TU.** *sentientes*] om. **U.** *non igitur*] *non ergo* **Oxf.** *caret sensu mundus*] *sensu caret* **H Oxf.** *pergit*] *et pergit* **Oxf.** *quodque*] *et quod* **UT.** *est expers*] *expers sit* **TH.** *compotemque—animantes* om. **U.** *num dubitares*] *non dubitarem* **V**, *non dubitares* **TU.** *tibicinii*] **CR**, *tibicini* **Oxf. OBHILMNV**, *tibicinis* **$V_1$UT.** *Cur*] *Cum* **B.** *procreet*] [Or.'s **B** in ras., *procreat* Or.'s **E**], *procraeaet* **B.**

23 IX. *atque initio—egere*] om. **N.** *oratione*] *orationem* **B.** *physicis*] Dav., *physicis id est naturalibus* **Z Oxf. T.** *confirmare*] **$O^1C$**, *confirmari* **$BHILMNO^2RV$ Oxf. U.** *alantur et quae crescant*] **BM**, *alantur et crescant* **Oxf. UOL**, *aluntur atque crescunt* Baiter. *in se*] *quandam in se* **T.** *vim*] **Oxf.**, *quandam uim* **R$V_1$U** [Or.'s **$V^2$**]. *agitur*] *agetur* **Oxf.** *utitur*] *uertitur* **HNR.**
24 *certo et*] *certo* **Oxf.** *vita remanet*] *in nobis* adds **T.** *insit*] *sit* **V**, text **$V_1$**, *est vel insit* **Oxf.** *esse ullum*] **BCR**, *esse* om. **H**, *ullum esse* others **U.** *nocte et die*] **Oxf.**, *die et nocte* **ILNVUT.** *concoquatur*] **Oxf.**, *coquatur* **LMNV.** *cuius*] **Oxf.**, *huius* **H$V_1$UT** [Or.'s **$V^2$**]. *reliquiis*] *reliquis* **Oxf.** [Or.'s **$A^1E$**]. *iis*] *his* **HRV**, *is* **U Oxf.** [Or.'s **E**]. *quas*] *qua* **B**, *quem* **Oxf.** *inclusum in eo*]
25 *in eo inc.* **Oxf.** *habere in se*] *in se habere* **UT.** *tranat*] *trahat* **HNCTU Oxf.** and (after *omnia*) **V.** *autem maximas*] *quae maximo* **MCV**, text **$V_1$** [*maximo* Or.'s **$C^2$**]. *in terrena natura*] *in terrae n.* **H**, *interea n.* **L**, *in. n. terrena* **C.** *perspici potest*] *p. perspici* **Oxf.**, *percipi p.* **N.** *et lapidum*] *ut Lepidum* **U.** *conflictu*] **Oxf.**, *confluctatione* **H**, *conflictatione* **N** [Or.'s **$V^2$**]. *atque tritu*] **BLO**, om. **H**, *atque ictu* **Oxf. MNCRV**, text **$V_1$**. *fossione terram*] *exustione ferarum* **H.** *fumare*] *reformare* **H**, *firmare* **V**, text **$V_1$**. *recalentem*]

**BHMCR Oxf.**, *recellentem* **N**, *calentem* **LO** others. *fieri temp. hib.*] *hib. temp.*
*fieri* **UT**. *continetur*] **HR**, *contineatur* **Oxf. UTOBILMNCV** (the order in **C** is
*caloris terrae contineatur cauernis*). *fit*] **C**, *sit* **BHILMNRV Oxf. O**. *con-*
*tinet*] *contineat* **UT Oxf. Z**, except *continent* **H**. *artius*] *arctius* **MCR**$V_1$ **Oxf.**

X. *concipiat*] *concipit* [Or.'s $A^1$] **HV**, text $V_1$. *ipsa*] *terra* **U**. *in-* 26
*fixa*] om. **H**. *ea*] *ex* **HN**, *ea ex* $V_1$**U**. *admixtum*] *amixtum* **B** and *amixto*
below. *aquae*] *tum aquae* **T Oxf. MNR**$V_1$, *cum aquae* **U**, *tamen aquae* **C**.
*effusio*] **Z**, except *effusioque* **H**, *et effusio* **O** with *et* erased, om. $V_1$ Davies. *con-*
*glaciaret*] *conglutinaret* **I**, *conglaciaretur* **R**. *liquefacta*] *liquaefacta* **V**
[Or.'s **V**]. *adiectis*] om. **C**. *tepescunt*] *tepescit* **B**. *adventicius*]
*aduentius* **B** [**C** of Orelli]. *recalescunt*] *calescunt* **U**, *concalescunt* **T**. *ha-* 27
*bendus est*] *est habendus* **Oxf. UT**. *iis*] *his* **BHV Oxf.** *effervescunt*] **BM**,
*eis effervescunt* **Oxf.**, *fervescunt* **UTOL**, *ahenis feruescunt* **H**, *aeneis feruescunt* **N**.
*subditis*] **Oxf. M**, *subiectis* **HNO**, *subitis* **BL**. *et ipsa*] *ipsa* **U**.

XI. *est*] om. **H**. *quae*] *ea quae* **C**, *quod* **V**, text $V_1$. *contineat—* 29
*tueatur*] *continet—tuetur* **UT**. *juncta*] *conjuncta* **U**. *mentis*] *menti* **HN**.
*gignuntur*] *gignantur* **V**. *e terra*] *est terra* **H**, *ex terra* **V**, text $V_1$. *ἡγε-*
*μονικὸν*] *egeminicon* **B** [Or.'s **C**], *egemomon* **H**, *εγεμονιcον* **M**, *egemonison* **C**, *egeno-*
*micon* **V**, *hegemonicon* $V_1$, *egemonicon* **Oxf.** [Or.'s **AEV**]. *quoque*] *quoquo* **B**,
*quo* **Oxf.**, *quocunque* **N**, *aliquo* **C**. *Ita*] *Itaque* **MC Oxf.** [Or.'s $V^2$]. *omnium*
*optimum omniumque*] *omnium omniumque optimum omniumque* **Oxf.** *potestate*
*dominatuque*] *p. donatuque* **B**, text $B^1$, *potestateque dominatu* **M**, *dominatu et po-*
*testate* **V**. *atque*] *et* **IL**, *ac* **N**. *parte*] after *igitur* **C**. *inest*] *est* **HV**. 30
*haec*] *hic* **U**. *complexa*] *complexas* **HU**. *perfectione*] *perfectionem* **U**.
*etiam*] om. **CV**. *ille fervor*] *fervor ille* **U**. *mobiliorque multo*] **Oxf.**,
*multoque nobilior* **I**, *multoque mobilior* **LU**, *nobiliorque multo* **MCRV**. *noster*]
*nutrit* **M**, *nutritus* **C**. *nota nobis*] *nobis nota* **LCUT**. *retinentur*] *conti-*
*nentur* **N**. *igitur est*] *est igitur* **ILMU**, *est enim* **N**. *cum*] **Oxf. HLMO**, 31
*quin* **B**. *mundum esse*] *esse mundum* **Oxf.** *et libero et puro* **BHM**, *et*
*puro et libero* **IL Oxf.**, *puro et libero* **N**, *libero et puro* **C**, *et libero puro* [Or.'s **E**].
*mobilissimo* **Oxf.**, *nob.* **MNRV**. *externo—teneatur*] *extrinsecus ab aliquo hoc*
*accipiat moueatur. Nam moueri necesse est multo ualentius qui pellat atque*
*motum efficiat quam quo ille teneatur* **H**. [So Or.'s **V** in marg. *extrinsecus hoc ab*
*aliquo accipiat neque.*]

XII. *enim*] *nunc* **H**$V_1$ [Or.'s $V^2$]. *duo*] **B**, *duos* **BU Oxf.** [Or.'s **C**$V^2$] and 32
others. *externum*] *extremum* **N**, *eternum* **Oxf.** *autem divinius*] *audiui-*
*mus* **H**, *suum autem dicimus* **N**. *ex se sua*] *ex sua* **Oxf.** *iisque*] *hisque*
**HV Oxf.**, *hiis quia* **C**. *intellegi poterit*] *intellegi* **Oxf.** *in eo inesse*] *in*
*eo esse* **H**, *inesse eo* **C**, by corr. from *in eo vim esse* **Oxf.** *ulla*] *illa* **MV**, text
$V_1$. *minoris sit*] Cod. **M** of Moser, *minor sit* **BMNOCRV Oxf.**, *sit minor* **HILUT**,
*sit minoris* Ursinus. After *pluris esse* **Oxf.** om. *necesse est—pluris esse.*
*qui est*] **M**, *qui esset* **BHO**. *est* **MO**, *esset* **BHU**. *omnem oporteret*] *oporteret*
*omnem* **Oxf.** *ad deorum*] *ad eorum* **Oxf.** *Primo*] **HLO**, *prima* **BMV Oxf.**, 33
*primum* **R**, text $V_1$. *gignantur*] **Oxf.**, *gignuntur* **LO** Manutius. *e terra*]
om. **H**, *ex t.* **V**, text $V_1$, *a terra* **U**. *augendo*] *agendo* **B**, text $B^1$. *rege-* 34
*rentur*] after *appetitus* **UT**. *tum—tum*] *tamen—tamen* **C**, *cum—tum* **Oxf.**

XIII. *gradus est et altissimus*] *est gradus et alt.* **B$V_1$U**, *est* om. **MRV Oxf.**, *gradus et alt. est* **C.** *natura boni*] *supra hominem* **Oxf.** from below. *sa-*
35 *pientesque*] *sapientisque* **B** [Or.'s **BC**]. *ulla*] **Oxf. LM**, *nulla* **OBHTU**, *illa* **V**, text **$V_1$**. *extremum*] *aeternum* **C**, so *aeterna* for *externa* below. *quae*] *cui* **HU**. *obstitit*] *obstint* **B**, *obtigit* **MV**, *obsistit* **NR$V_1$**, *optigit* **C Oxf.** [Or.'s **V** marg.]. *quendam*] *solitum* adds **H.** *omni*] *omnium* **C.** *etiam magis*] *magis etiam* **U.** *absolvi—perfici*] *esse absoluti—perfecti* **$V_1$**, *absoluti —perfici* **U.** *ac*] *atque etiam* **UT.** *possunt*] *possint* **H.** *omnes naturas*] *omnis natura* **Oxf.** *et altissimum gradum*] *gradum et altissimum* **U.**
36 *est gradus*] *gradus* **Oxf.** *et praesit*] *et* om. **LMCRV**, rest. **$V_1$**, *possit* for *praesit* **L.** *inscitius*] *inscientius* **HN.** *Qui*] *Quid* **C.** After *sit deterior*
37 **Oxf.** om. *mundi—deterior.* *insipiens*] *inscipiens* **B.** *est quicquam*] *quicquam* **Oxf.** *cui*] *quo* **OBHCRVU Oxf.** *quodque—expletumque sit* om. **B.** *quodque*] *quod* **T.** *expletumque sit*] *sit atque expletum* **H.**

XIV. *Scite*] *Sic et* **H.** *gignit*] *gigni* **Oxf.** *arandi*] *arandi causa* **Oxf.** *ortus est*] *est* om. **B.** *nullo modo*] *in nullo* **VTU Asc.**, *in nullo modo* **$V_1$.**
38 *sed est*] **BMO+**, *sed* **H.** *neque est*] *neque enim* **H**, *nec est* **V.** *non*] om. **H Oxf.** *insit in eo*] *in eo sit* **H**, *sit in eo* **CUT.** *Qui*] *quid* **Z Oxf.** *id quod*] **BH**, *quod* **MOCV Oxf.** *est optimum*] *optimum* **H.** *est autem*] **HO**, *autem est* **BCR**, *est* om. **V.** *mente et ratione melius*] *optimum* (corr. *melius*) *m. e. r.* **Oxf.** *in equo quam in eculeo*] *neq̄ qm̄ in eque* **Oxf.** [*nequaquam in eculeo* Or.'s **$V^1$**]. *eculeo*] **IL**, *equulo* **BHNV**, *equuleo* **MR**, *equlo* **CO.** *id in*
39 *perfecto*] **BM**, *in perfecto* **H.** *et efficitur*] *efficitur* **Oxf.** *est ergo*] *est igitur* **Oxf.**

XV. *quae*] *qua* **M**, *quia* **N.** *mobilissima*] *mollissima* **B**, *nobilissima*
40 **HLNRV$U^1$**, text **$V_1U^2$.** *purissimaque*] *puraque* **U.** *ea quidem*] *equidem* **MR.** *et candor*] Klotz, *calor et candor* **Oxf. B$V_1$**, *ardor et candor* **H**, *candor et calor* **LNCO**, *candor* **MRVT.** *ullius*] **Oxf. O**, *ullus* **BHLMCRVUT.** *faceret*] *facere* **M.** *pastu*] *partu* **Oxf.** *pastu aliquo possit permanere*] *al. pastu perm. pos.* **UT.** *necesse est*] *est* om. **M** [corr. fr. *esset* Or.'s **V**]. *igni*] *ignis* **B.** *ad victum*] **MRV**, *ad* om. **Oxf. BHILNO**, *auctum* **C.** *ei*] *eius* **B.**
41 *continetur*] *contineatur* **T.** *Atqui*] **MN**, *atque* **BHIOLCRVUT Oxf.** *est*] om. **H.** *omnium*] om. **Oxf. RV**, rest. **$V_1$.** *auget*] *auget et* **T.** *sensuque*] *sensus* **Oxf.** *is*] **Oxf. HM**, *his* **BO** [Or.'s **$B^1CV^1$**]. *quaeque*] *quoque*
42 **HN.** *qui aether*] **Oxf.**, *quia ether* **B** [Or.'s **$V^1$**]. *igitur*] **BHMRV**, *enim* others. *in aëre aliorum*] om. **H.** *videtur*] *visum* **Oxf.** *id et*] *idemque* **MCRVU Oxf.**, *idem* **BLO**, *id est* **H.** *celerrima*] *celeberrima* **Oxf.** *in aethere*] **Oxf.**, *in etherea* **B**, *mobilitate* **N.** *iis*] *his* **BHMUT Oxf.**, *hiis* **O.**

43 XVI. *incolant*] *incolunt* **H.** After *intellegentiam* **Oxf.** om. *in sideribus—atque intellegentiam.* *et aetheriam*] **M**, *et* om. **OHBU** [Or.'s **P**], *et eam* **C.** *alantur*] *utantur* **LCU.** *omni*] *omnia* **B.** *amica varietati*] *a nulla uarie-*
44 *tate* **H**, *amica uarietatis* **N** [*am. varietate* Or.'s **P**]. *laudandus*] **Oxf. BHMO+**, *laudandus est* Baiter from his Cod. A. *sublime*] *in sublime* **Z Oxf. UT.** *circumque ferretur* **Oxf. B**, *circum quaque ferr.* **H**, *undique circumquaque ferr.* **O**, *circumquaque fertur* **N.** *sit*] *sic* **U.** *procuratione*] *procreatione* **L** [Or.'s **$B^1$**]. *enim*] *autem* **T.** *existimem*] *aestimem* **C**, *existimem esse* **R.**

XVII. *Restat*] *Sane restat* **MCV Oxf.**, *Restat sane* **N**, text **$V_1$**. *abducere*] 45
*inducere* **Oxf.** *talem*] *tale* **B.** *in omni*] **Oxf. BO**, *in* om. **MV** [**Asc.**
supersc. in Or.'s **V**], text **$V_1$**. *respiciens*] **Z Oxf. UT**, *resipiens* Ursinus. 46
*esse deos*] *deos* **Oxf.** *praestantem esse al. nat.*] *al. praest. nat. esse* **U.** After
*nihil sit melius* **Oxf.** om. *mundo—id sit melius.* *Nec dubium—id sit melius*]
om. **H.** *et rationem*] *et* om. **VU.** *id*] *illud* **UT.** *his*] *iis* **Oxf. B,**
*is* **U**, om. **T.** *careat*] *caret* **H.** *mundum esse*] om. **H.** *iis*] **Oxf.**, 47
*his* **VU.**

XVIII. *noli*] *voli* **Oxf.** *vos*] *nos* **HR Oxf.**, om. **L.** *Conum tibi*] *cunum*
*tibi* **B**, *zonum tibi* **I**, *comuniter* **N** [*quonum tibi* Or.'s **AV$^1$**]. *cylindrum*]
*chilindrum* **Oxf. HC**, *chyl.* **V**, text **$V_1$**. *pyramidem*] *pir.* **BCV Oxf.** *sphae-*
*ram*] *speram* **BCV** [Or.'s **BE**], text **$V_1$** [*spheram* Or.'s **AC**]. *alias*] om. **C.**
*praestantes*] **Oxf. Z**, except *praestantis* **H.** *globus*] *globis* **HNC Oxf.** *σφαῖραν*]
*speram* **CV**, *sphaeram* **RV$_1$**. *circulus*] **BHMCRV**, *anulus* **I**, *circulis* **LNU**,
*circus* Davies. *κύκλος*] *ciclus* **BCO**, *cyclus* **RVHM**, om. **L.** *omnes*] **L,**
*omnis* **BM Oxf.**, om. **H.** *inter se*] *in se* **B**, *se* om. **H.** *sint inter se*] *inter*
*se sint* **UO.** *extremum*] *extremum quantum* **Oxf.** *quantum idem a summo*]
**UT$^2$**, om. **T$^1$BHIL.** After *quantum* **Oxf.** om. *idem—eruditum.* *haec*] *hoc* 48
**MRVU.** *ne*] **BHO**, *An ne* **MV**, *anne* **C Oxf.** [Or.'s **V$^2$ Red. Asc.**], cf. Madv.
Opusc. Ac. 2 p. 163. *aequabilitatem*] **N**, *aequalitatem* **Oxf. O** others. *motus*]
*motuum* **N.** *potest esse*] **Oxf. LMO**, *esse* om. **BH.** *solet*] *assolet* **Oxf.** *ro-*
*tundum*] *rotondum* **B**, *rutundum* Baiter from his Codd. AV and in I 66, and so
Lachmann and Munro on Lucr. II 402. *aliarum*] *aliorum* **Oxf.** *quot*]
**H Oxf.**, *quid* **M**, *quod* **UBO.** *palato*] *Plato* **IL** [Or.'s **B$^1$**]. *palatum*] 49
*palatium* **HV$_1$** [Or.'s **A$^2$**].

XIX. *spatiis*] *spacium* **Oxf.** *continuas conversiones duas*] *duas* om. **H**
[Or.'s **P**], *continua conuersione sui* **MRVUT**, text **$V_1$**. *conficiat*] **H**, *confectat*
**LBUT**, *conflectat* (marg. 'al. *confectat*') **O**, *confecta* **MRV Oxf.** *rotundi*] *ro-*
*tondi* **B.** *tenet*] **Oxf.**, *continet* **N**, after *principatum* **C**, *optinet* **V** [*obtinet* **Asc.**].
*ex partibus*] *ex* om. **V.** *eadem est aequabilitas*] **BO$^2$**, *eadem est* om. **H**, *aequa-*
*bilitas eadem est* **C**, *eadem est aequalitas* **VO$^1$**. *modici tum recessus*] om. **B**
[Or.'s **C**]. *modici—caloris*] om. **H.** *circumitus*] **B**, *circuitus* others.
*V et LX et CCC*] **RV$_1$**, *quinque defectibus et sexaginta et trecentorum* **B**, *quinque*
*defectibus quum et sexaginta et trecentorum* **H**, *quinque defectibus est et sexaginta*
*et tricentorum* **L**, *quinque defectibus et LX trecentorum* **N**, *quinque deflexionibus*
*al. defectibus et sexaginta et trecentorum* **O**, *quinque diebus et sexaginta et ccc$^{orum}$*
*et* **C**, *V defectibus et LX et CCC* **V**, *quinque et sexaginta et trecenti* Cujas, *V*
*et LX et trecentorum* **Oxf.** *conversionem—annuam*] *conuersione—annum* **N.**
*sol*] om. **L.** *tum*] om. **Oxf.** *ea*] om. **T.** *omnium quae*] *omniumque* **C**
[Or.'s **V$^1$**], *omnia quae* **T.** *ducuntur*] *dic.* **Oxf. V** [Or.'s **C$^1$**], text **$V_1$**. *ac*] 50
*et* **U** [by corr. fr. *ad* Or.'s **AB**]. *tum—tum*] *tamen—tamen* **C**, *cum—tum* **T.**
*aquilonia*] **HR**, *aquilenta* **Oxf. BMNC**, *aquilonaris* **I**, *aquilonalis* **LOVU.** *tum*]
**HMCRV**, *aut* **BOILN**, *tum est* **Oxf.** *solstitii*] *solstitiis* **B.** *alantur auges-*
*cantque et pubescant—adsequantur*] *aluntur augescuntque et pubescunt—assequun-*
*tur* **LT.** *oriuntur*] *oriantur* **C.**

XX. *sunt*] after *admirabiles* **V.** *ratos*] *ratus* **B.** *Quod*] *Quid* **B.** 51
*tum*] *quum* **H**, om. **Oxf.**, *tamen* throughout **C.** *adeunt*] Ursinus, *abeunt* **Oxf.**

**Z**, except *habent* **O**. *autem*] *ante* **C**, om. Ernesti. *ne*] *non* **H**, om. **Υ**.
*insistunt*] *insistit* **B** [Or.'s **C**]. *ex*] *et* **CV Oxf.** *annum*] *animum* **Oxf.**
52 *definitam*] *diff.* **HVUΥ**. *Saturni*] **Oxf. HMO**+, *Saturnia* **B**. Φαίνωνque]
*Fenonque* **BC** [Or.'s **C**], *phoenixque* **H**, *fanonque* **MV**, *Phenonque* **R Oxf.**, *fainonque* $V_1$. *quae a*] *qua e* **B**. *delitiscendo*] *delitescendo* **Oxf. HMRV**, *deluciscendo* **N**. *rursum*] **Oxf.**, *sursum* **H** [Or.'s $V^2$]. *nihil*] om. **B**, *non* **H**. *saeclorum*] *seclorum* **M**, *saeculorum* others. *eadem*] *easdem* **MR**. *isdem*] *his* **B**, *hisdem* **V**. *efficiat*] **Oxf. BOL**, *efficiantur* **HU**, *efficit* **M** [*efficiatur* Or.'s **P**]. *propius*] *longius* **H**. Φαέθων] *fethon* **B** [Or.'s **C**], *phoeton* **H**, *Feton* **C Oxf.**, *Phethon* **R**, *phaeton* **V**, *phaethon* $V_1$. *duodecim*] **BL** twice, *XII* others. After
53 *conficit* **Oxf.** inserts *in quo cursu* by error from above. *Huic*] *hic* **H**. Πυρόεις] *Pyrois* **BRV**, *pirois* **C Oxf.** *quattuor et viginti*] **BL**, *IIII et XX* others. *sex*] *VI* **Z**. *quem*] *quam* with *e* superscr. **CU**, *quod* **Υ**. *hanc autem*] *autem hanc* **CU**. *ea*] *ea quae* **C**. Στίλβων] *stilbon* **Oxf. Z**, except *salbon* **N**. *vertente*] *fervente* **B** [Or.'s **C**]. Φωσφόρος] *Phosphoros* **Z**, except *fosforos* **C**, *forforos* **Oxf.** *Lucifer Latine dicitur*] **BMR**, *Latine Lucifer dicitur* **C**, *Latine dicitur Lucifer* **V**. *subsequitur*] *sequitur* **U**. *Hesperus*] **HNL**, *hesperos* **Oxf. BCRV**, Ἕσπερος Baiter, **L** leaves blanks for all previous Greek names. *orbis*] *oribus* **B**. *et longitudinem*] *longitudinem* **Oxf.** *ab*] *a* **CRV** [Or.'s **CE**]. *intervallo*] *intervalla* **Oxf.**

54 XXI. *in sideribus*] *in* om. **MCRV**. *ipsa*] om. **V Oxf.**, rest. $V_1$. *eae stellae*] *aeae stellae* **B**, *haec stellae* **C**, *hae stellae* **V Oxf.**, *stellae hae* **U**, *stellae eae* others. *inerrantes*] *errantes* $U\Upsilon^1$, text $\Upsilon^2$. *cotidiana*] **Oxf.**, *quotidiana* **HMV**, *cotidia quotidiana* **N**. *ac*] *atque* **Oxf.** *suffusus*] *perfusus* **B**.
55 *inerrantes*] **V**, *errantes* **H**, *quinque errantes* **N**. *perennes*] *perhennes* **BC Oxf.**,
56 *peremnes* **R**. *incredibilique*] *incredibili* **Oxf.** *vanitas*] **Oxf.**, *inannitas* **N**, *varietas* **L** Dav. *ementita*] **BHL**, *ea mentita* **MCRV Oxf.**, *ea ementita* $OV_1$, *ea dementia* **U**. *et falsa*] *uel falsa* **LO**. *ea*] *eunt* **Oxf. UMRV** [Or.'s $V^2$], *aut* **N**. *versantur*] **BH**, *uersatur* **LMOC Oxf.** *caelestem*] **Z Oxf. ΥU**, *caelestemque* **O**, *caelestem ergo* **L**. *admirabilem*] *admirabilemque* **Oxf.** *is*]
57 **O**, om. **MCRV**. *ergo*] *igitur* **Υ**. *ut*] om. **H**. *investigandae*] *inv. rei* **U**. *duxero*] *duximus* **H**, *dixero* **NC**.

XXII. *Zeno*] *Zenon* **L**. *naturam ita*] **Oxf. BMCR**, *naturam sic* **V**, *ita naturam* others. *definit*] **Oxf. B**, *diffinit* **HMOCVUΥ**, *definiuit* **R**. *dicat*] om. **H**. *ignem esse*] **Oxf.**, *esse* om. **H**, *esse ignem* **V**. *via*] *viam* **U**, last syll. erased in **Υ**. *quodque*] *quod* **Oxf.** *nostrarum*] after *artium* **RV**.
58 *sectam*] *secretam* **LN**. *sequatur*] *sequantur* **B**, *sequitur* **N**. *complexu suo*] *complexus* **H** [*complexus voco* Or.'s **P**]. *coërcet*] om. **H**, *coheret* **I**, *cohercet* **Oxf. LNR** [Or.'s $EV^1$]. *consultrix*] *consulatrix* **B**, *et consultrix* **C**. *quaeque*] **BHILMN Oxf.**, before *naturae* **C**. *continentur*] *continent* **V** [Or.'s $B^2$], *continuantur* $V_1$. *quas* ὁρμάς—*actiones*] om. **H**. ὁρμάς] *hormas* **Z Oxf.** *eamque causam*] *eam causamque* **Oxf.** *vel prudentia vel*] **BO**, om. **MRV**, *vel* **Oxf.**, *aut prouidentia aut prudentia* $V_1$. πρόνοια] *pronaea* **I**, *pron ea* **Oxf.**, *pronocha* **N**, *pronoea* others. *et*] *ut* **B**, om. **C**.

59 XXIII. *etiam est*] **RV**, *est* om. **BC**, *etiam* om. **Υ**, *enim etiam* **H**, *est etiam* others and **Oxf.** *prope modum*] **Oxf.**, *prope mundum* **B**, *prope in eodem* **H**.

*venis et*] **Oxf. OM**, *uenisset* **B**, *uenis ac* **H**, *venis ut* **L**. *iis*] *his* **BHO Oxf.**, om.
**MV**. *iis*] **M**, *his* **BHV Oxf.**, *is* **C**, *in his* **UO**. *extimescant*] *pertimescant*
**L**, *existimant* **N**. *defetigatione*] **B** [Or.'s **ABV**$^1$], *defatigatione* **HMRV Oxf.**
[Or.'s **CV**$^2$], *defectione* **LOT**, *fatigatione* **C**. *monogrammos*] *est monogamos* **H**, *non*
*monomagos* **I**, *monagtonos* **N**. *deos*] om. **ILT**. *commentus*] *coniunctus* **I**, *com-*
*mentatus* **MR**. *est*] om. **H**. *collocati*] *collati* **B**. *a maioribus* **Oxf.**, 60
*a* om. **MCRV**, rest. $V_1$. *erga*] *grati* **HN**, om. **T**. *Terentii*] *terenti* **Oxf. B**
[Or.'s **BV**], *Ter. sit* **M**. *ipsa*] *ista* **O**. *inest*] *est* **HR**, *inesset* **O**. *inest* 61
*major*] *major inest* **Oxf.** *ipsa uis*] **Z Oxf. UT**. The whole *ut—deus* seems
to me spurious. *Vides—vides*] **Oxf. MO**, *uide—uide* **B**, *uides—uide* **H**.
*Ligustico*] *legustico* **V** [Or.'s **AB**$^1$**V**$^1$], text $V_1$. *Q.*] *Quinto* **V**. *Maximo*]
*moximo* **B**. *Voluptatis*] *uoluntatis* **BI**. *Lubentinae*] **Oxf.**, *libidine* **HI**,
*lilibitinae* **L**, *libertinae* **N**, *libentinae* $V_1$. *rerum*] *quidem rerum* **R**. *exi-*
*stimat*] *extimat* **B**. *sunt*] *sunt a me* **UT**. *quae vis*] *quis* **T**.

XXIV. *excellentes*] *excellentus* **Oxf.** *ac voluntate*] om. **Oxf.** *Semela* 62
*natum*] **Oxf.**, *semel anatum* **B**, *Semele n.* **HLMVO**$^2$, *semel enatum* **NO**$^1$. *auguste*]
**Oxf.**, *augustiae* **B**. *Liberum*] **Oxf. BMO**, om. **HINR** Walker. *mysteriis*]
**BO**, *ministeriis* **Oxf. LMNCRV**, text $V_1$. *Libera—Libero*] *Libero—Libera* **N**.
*Romulus*] *Romulum* **Oxf. TUZ**, except *romolum* **B**. *quidem*] **H**, *quidam* **BM**$^1$**NR**
**Oxf.**, om. **O**. *eundem*] om. **NV**. *cum*] *enim* **R**. *rite di sunt*] **BO**
**Oxf.**, *nec di sunt* **H**, *di* om. **M**, *rite sunt dii* **C**, *dii rite sunt* **R**, *dii ritae sunt* **V**.
*habiti*] *habitati* **Oxf.** *cum et optimi essent et aeterni*] **Oxf. O**$^2$, *cum optimi &c.*
**O**$^1$ [Or.'s **C**], *cum optimo &c.* **B**, *cum et optimi sint aeterni* **H**, *cum et optimi sint et*
*aet.* **N**, *et aeterni cum essent optimi* **C**. *ex ratione*] *eratione* **B**. *magna*] 63
om. **H**, *uana* **N**. *induti*] **H**$^2$**ILN**, *inducti* **Oxf. BH**$^1$**MOCV**. *vitam*] *uita* **B**
[Or.'s **C**]. *referserunt*] *referunt* **LT**. *oppleuisset* **B**, *expleuit* **H**, *oppleuit*
**LONU**, *oppleuit sed* **Oxf. C**, *oppleuit scilicet* **RV**. *exsectum*] *exectum* **HRV**, *et*
*secutum* **L**. *Caelum*] *Celium* **CRV** [*caelium* Or.'s **V**$^2$], *Celum* **Oxf.** $V_1$. *Satur-*
*num ipsum*] *ipsum Saturnum* **Oxf.** *impias fabulas*] **Oxf. LMO**, *impia fabulas* 64
**B**, *impias filias* **H**, *impia fabula* **R** [Or.'s **C** by corr.]. *caelestem*] **HOL**, *cae-*
*lestium* **Oxf. BMV**$_1$, *caelestum* **CR**. *vacare*] *uocare* **N Oxf.** After *vacare*
*voluerunt* **Oxf.** om. *ea parte—esse voluerunt*. *ea*] *a* **U**. *egeret*] *ualeret*
**IU**, erased **T**.

XXV. Κρόνος] *Oro nos* **B** [*oronos* Or.'s **C**, *orones* Or.'s **E**], *chronos* **Oxf. CV**$_1$,
*cronos* others. *qui*] *quod* $V_1$**U**. *χρόνος id est*] **BHC**, om. **ILNOVR**. *id est*]
*idem* **Oxf. M**, *quod* **U**. *saturaretur*] *saturetur* **L** [Lactant. I 12]. *in-*
*saturabiliter*] *insatiabiliter* **Oxf.** *vinctus*] *uictus* **HV**, *uictos* **N**, text $V_1$.
*autem*] *est autem* **VUT**. *pater quem*] **BHOL**, *quem partemque* **M**, *quem partem* **C**,
*et quidem ante optimus*] om. **Oxf.** *omnibus*] *hominibus* **U**. *magnas*]
*maximas* **N**. *Hunc*] *hanc* **B**. *supra dixi*] *praedixi* **LTU**. *sublime*] 65
**Z**, except *sullime* **C**, see § 4. *candens*] *cadens* **BN**. *planius quam*] **O**,
*planiusque* **BLMNCRVUT**, *planius quem* **H Oxf.**, *Plautusque* **I**. *idem*] *id est* **O**.
*Cui*] om. **N**, *cur* **C**. *est*] om. **HV**$_1$. *execrabor*] **Oxf. Z**, except *executor* **H**.
*quod*] *quo* **Oxf.** *quicquid*] *quidquid* **B**, *quitquit* **C**, *et quicquid* **T**. *augures*]
*augeres* **B**. *Jove fulgente tonante*] **Oxf. BM**, *iouem fulgentem tonantem* **UTLH**,
*jovem fulgentem et tonantem* **O**, *iouem dicunt fulgentem conantem* **N**. *enim*]
*eum* **T**. *caelo*] *melo* **BNC Oxf.**, *modo* **H**, *in caelo* **LOVUTM**$^2$, *in melo* **M**$^1$,

text $V_1$. *fulgente tonante*] **M**, *f. et t.* **Oxf. BNCRV**, *fulgentem et tonantem* **HOLUT**. *Euripides*] **Oxf.**, *Eurippides* **B**, *Euri pedes* **N**. *fusum*] *sursum* **H**, *fussum* **L**. *terram tenero*] *terras tenero* **H**, *tenero terram* early Edd. *circumiectu*] *circumiectum* **B**, *circuitu* **HLN**, *circuniectu* **R**, *circumiecto* **Oxf. V**, text $V_1$. *amplectitur*] *amplectatur* **V**, *complectitur* **T**. *Hunc—Jovem*] om. **H**.

66 XXVI. *coniunx*] **Z**, except *coniux* **L**. *ei*] Probus, *et* **Z Oxf.** *effeminarunt*] **Oxf. BHMCRV**, *effoeminauerunt* **I**, *effeminauerunt* **LNO** [Or.'s **B**]. *autem eum*] *eum autem* **T**. *Junonique*] *iononique* **B**. *tribuerunt*] *tribuunt* **T**. *est eo*] *est* om. **B** [Or.'s **C**], *esset eo* **H**. *mollius*] *melius* **LN**. *altero*] **ZO Oxf. T**, except *alterum* **B**, *alteri* $O^2$**U**. *volunt*] *uolumus* **M Oxf.** [Or.'s $V^1$], *uolimus* **C**. *portunus*] *portuna* **Oxf.** *portu*] **H**, *porta* **BLOM Oxf.** *paulum*] *paululum* **N**. *Diti*] *diei* **C**, *Cliti* **R**. *Dives*] *D. est* **C**, *dictus est* **R**, *dives et* **U**. Πλούτων] *pluton* **Z Oxf.**, except *plutos* **H**. *quia*] *qua* **O**. *recidunt*] **O**$V_1$, *recidant* **Z Oxf.** *terras et*] **M Oxf.**, *terra sed* **B**, *terras sed* **H**, *terram sed* **TOL** [Or.'s **CP**, *terris et* Or.'s **E**]. *oriuntur*] **BHLMOV Oxf.**, *oriantur* others. *Proserpinam*] **Oxf. BMO**+, *Proserpina* **NH**. *quod*] *quidem* **HN**. *est*] *habet* **N**. *ea enim est*] om. **B**. Περσεφόνη] *persefone* **B Oxf.**, *persephone* others. *nominatur*] *nominantur* **B**, *nominata est* **H**. *nuptam dicunt*] **C** here. So Cod. Regius of Davies, for Baiter is wrong in stating that it places the words after *nomen est*, om. all others. *volunt*] *uolunt deae filiam esse* **N**.
67 *absconditamque*] *que* om. **C**. *itidem immutata*] **Oxf. B**, *itidem mutata* **MRV**, *idemtidem imm.* **N**, *immutata itidem* **C**, *inde mutata* **O**. *ut*] om. **U**. Δημήτηρ] *clementer* **L**, *demeret* **N**, *demetera* $V_1$, *demeter* others. *quasi* Γῆ μήτηρ] *quasi gemmentur* **L**, *quasi gemeret* **N**, *quasi gemetera* $V_1$, *quasi gemeter* others. *vorteret*] Heind., *uerteret* **Z**, except *uertetur* **H**. *vel*] *uel quae* **HN**. *minaretur*] *minueretur* **L**.

XXVII. *haberent*] *habere* **M Oxf.** [Or.'s **V**], *haberet* **C**. *est ductum*] *ductum est* **Oxf.** *ductum*] *dictum* **B** [Or.'s **C**] **NC**. *liminibus*] *limitibus* **B**, *luminibus* **CV**, text $V_1$. *ianuae*] *ianae* **B** [Or.'s **C**]. *a Graecis*] *a Graecis est* **NC**, *est a Graecis* **U**. *ea est*] *ea est est* **T**. Ἑστία] *hestia* **Z**, except *hostia* **N**, *bestia* **Oxf.** *ad aras*] *et aras* **Oxf.** *quod*] **Oxf.**, *quae* **IV**. *intumarum*] *uictimarum* **HN**$V_1$**U**. *et precatio*] *et procreatio* **N**, *et* om. **C**.
68 *est*] om. **Oxf.** *Nec*] *Non* **B**. *vi di*] *Indii* **L**. *ducto*] **BHO**, *ducti* **M Oxf.**, *dicti* **N** [*ductu* Or.'s **P**$V^1$]. *vescuntur*] **Oxf. HMO**, *uescunt* **B** [Or.'s **AP**$V^1$]. *Jam*] *Nam* **LNT**. *Dianam—putant*] om. **N**. *putant*] *uolunt* **C**. *cum est exortus*] *eius ortus* **HN**. *omnibus*] *omn. aliis* **H**. *apparet*] *appareat* $V_1$**T**. *sit*] *est* **UT**. *eamque Luciferam*] *eam quam lucifera* **T**. *nostros*] *nostras* **B** [Or.'s **C**]. *omnivaga*] *noctiuaga* $V_1$. *venando*] *uagando* **HN**$V_1$**U**. *numeratur*] **Oxf.**, *numeretur* [Or.'s
69 $V^2$] **HLT**$U^1$, text $U^2$, *sideribus examinatur* **C**. *dicta*] *dicta est* **HN**, *dictu* **T**. *autem*] om. **H**. *ii maturescunt*] *imaturescunt* **B**, *hi m.* **HO**, *dii m.* **L**. *non numquam*] **HMO**, *non umquam* **B** [Or.'s **CE**]. *aut ut plerumque*] *aut plerumque* **UT** Probus, *aut ut plurimique* **C**. *Timaeus*] *rimatus* **H**, *Thimeus* **V**, *Timeus* $V_1$. *Ephesiae*] **Oxf.**, *efesiae* **B** [Or.'s **C**], *effesiae* **C** [*ephesianae* Or.'s **A**]. *templum*] *templa* **HN**. *deflagravisse*] **BH**, *deam migrasse* **M**, *deam migravisse*

Oxf., *deflagrauisset* OV, text $V_1$. *abfuisset*] HMO, *affuisset* LB, *adfuisset* Oxf.,
*afuisset* Baiter. *abf. domo*] *domo abf.* UT.

XXVIII. *fictos*] Oxf., *ficticios* H [Or.'s $V^2$], after *deos* C. *nobis*] om. HT. 70
*coniugia*] *coniungia* B. *accepimus*] HILO, *accipimus* BMNCRV Oxf. *di*]
LOUT, om. BHMC Oxf. *caruerunt*] *caluerunt* B [Or.'s C]. *solum*] *uero* B,
*solam* V, text $V_1$. *etiam ut*] HM Oxf., *ut* om. LOTB. *Titanis*] *tirannis* O.
*ut cum*] M Oxf., *et cum* B, *id est* HNUT, *cum* OL. *futilitatis*] *furtilitatis* B
[Or.'s $A^1$], *scurilitatis* HN, *subtilitatis* L Oxf., *inutilitatis* C [Or.'s $C^1$], *vanitatis*
Aug. [*facilitatis* Or.'s E]. *tamen his*] *his tamen* Oxf. Before *poterunt* 71
*intellegi*, Oxf. inserts *intelliguntur vel*. *qualesque sint*] *quales sunt* BN, *qua-*
*lesque sunt* Oxf. OLMRT. *quoque*] *quosque* C. *hoc eos*] Keil, *hos deos*
Oxf. UZ, except *quos deos* BCTO. *et venerari*] *uenereris* H, *venerari* MCV.
*pura*] *pure* MR. *incorrupta*] *incorruptaque* R. *precabantur*] *praedicabant* 72
H, *precabuntur* C. *sibi sui liberi*] *filii sui aut sibi sui liberi* T, *filii eorum*
*aut sui liberi sibi* IL. *patuit postea*] *potuit postea* B, *postea patuit* C.
*ex relegendo*] *ex relegando* B [Or.'s C], *a relegendo* $V_1$. *ex rel.—enim*] *ex*
*religendo diligentes et ex intelligendo his enim* Oxf. *tamquam ex eligendo*
*elegantes*] Dav., *elegantes ex elegendo tamquam* BTO, *elegantes ex eligendo et*
*tamquam* H, *ut eligentes ex eligendo tamquam a* UMCV$_1$, *ut eligentes ex eligendo*
*exque* R, *ut elegantes ex eligendo itemque* Heind. *diligendo diligentes*]
*legendo delegendis* BHTO, *deligendo deligentes* MCRVU. *ex*] *et ex* C. *vis*
*legendi*] *laudis* Oxf. *eadem quae*] *eademque* CT. *et religioso*] BO, *et in*
*r.* C, om. Oxf. [Or.'s $V^1$] RV, rest. $V_1$. *Ac*] *At* HNV, text $V_1$. *videor*]
Oxf. [Or.'s $V^1$], *uidetur* HN [Or.'s $V^2$].

XXIX. *locus*] *locutus est* Oxf. *vexatus*] *laxatus* Oxf. *vobis*] *nobis* V. 73
*quicque*] *quidque* B, *quicquid* H, *quicquam* V. Baiter retains *quidque* throughout.
*legitis*] *perlegitis* HU. *πρόνοιαν*] *pronaeanas* B, *putam* N, *pronoeam* RV, *pro-*
*noean* others. *induci*] Ursinus, *induci id est prouidentiam* Z. *eo*] *ea* B.
*quia*] *quod* T. *existumas*] B, *existimas* Oxf. O others. *ab iis*] om. H,
*ab his* V Oxf. U. *deam*] om. Oxf. *Ariopagi*] [Or.'s AE] HLMCV, *Arpagi* 74
B [Or.'s BCV], *Arpai* Oxf., *Areopagi* R. *deesse*] *deest* IN, *desit* L. *arbi-*
*trato*] B Oxf. O, *arbitratu* HC, *arbitratio* IL, *arbitror* MVUT, *arbitrio* N, *arbitrator*
R. *Plene*] HMO, *Plane* B Oxf. U. *natio*] *oratio* HNR. *in inridendis*]
Oxf. U, *in* om. IN. *nolitote*] Oxf., *nolite* HLN. *me hercle*] *me ercule* B
[Or.'s C, *meercle* A, *merculae* $B^1$], *mehercule* MCR [Or.'s $B^2$EV], *Hercule me* Oxf.
*hoc*] om. B Oxf. *unum*] om. Oxf. *convenit unum—limatum*] Kinder-
vater, *uno conuenit—limato* ZUT. *insultantem*] *insalutantem* Oxf.

XXX. *mundum*] *administrari* adds T. *nostri fere*] om. T. *est* 75
*autem*] *autem est* Oxf. *eaque*] *ea quae* T. *omnia pulcherrime geri*] Oxf.
[*o. pulchrume g.* Or.'s V], *omne pulchrum egerit* T. *ea esse generata*] Bouhier,
*esse omnia generata* N, *eam generatam* C, *eam esse generatam* UT Oxf. O and others.
*ducitur*] M, *dicitur* HC, *datur* L, *dr* BO Oxf. *negat*] *negant* L. *aut qui*] 76
*qui et* H, *aut quid* V, text $V_1$. *iis*] *his* V Oxf. UT. *eos*] om. T. *mundi*
*administratione*] *mundo* T. *profecto sit*] BLMNRV Oxf., *sit profecto* HC.
*est*] om. I. *melius*] LBHO, *esse melius* IMNV, *melius esse* C. *deus*]
*deos* Oxf. UT Mus. *id*] *uel* B, om. C, after *cumque* TU. *inanima*] *inani-*

*mata* **M Oxf. U** [Or.'s $V^2$], *in animata* **NCV**, *in anima* $V_1$. *natura*] om. **HT**.
77 *Non est*] *novem* **B**. *deorum*] om. **MRV**. *ei vel*] *et vel* **H**, *ut vel ei* **T**.
*qua*] *qui* **B**. *terrae*] **Oxf. BO**, *terraeque* **MCRVU**. *est autem*] *autem est*
**Oxf.** *igitur*] *ergo* **C**. *mundum necesse est regi*] *regi mundum est necesse*
**Oxf.** *mundum necesse est*] *est* om. **M**, *necesse est mundum* **V**. *est naturae*] *n. est* **C**. *ignorant*] *ignoretur* **T**. *eae*] *ea* **B** [Or.'s **C**], *eo* **C**, *hae*
**VTU**. *eae modo*] *modo eae* **Oxf.** *sustineant*] *sustinent* **T**. *cadit*]
*eadem* **HTO**.

78 XXXI. *atqui*] *atque* **U**. *di si*] *diis et* **B**. *modo sunt*] **NC**, *modo sint*
**Oxf. UO** others. *rem publicam*] *per potestatem* **IL**. *aliquam*] *aliquem* **B**.
79 *in iis*] *in his* **RV Oxf.**, before *eadem sit* in **V**. *veritas*] **BO**+, *uerita* **C** [*virtus*
El. Bake]. *utrobique*] *hic ibique* **HR**, *haec utrobique* $V_1$**U**. *sunt*] *sint* **B**.
*ab superis*] **B Oxf.**, *a superis* **HMNCRV**. *defluere*] *diffluere* **T**. *in maximis*]
80 *in* om. **HMR**. *autem*] **BO**, *autem esse* **CR Oxf.**, *autem est* others. *eum*]
*cum* **Oxf.** *videremus*] *uidemus* **CT**. *menti atque*] om. **T**.

81 XXXII. *ab ea*] om. **R**. *intellegi possit*] *p. i.* **UT**. *censent esse*] *esse censent* **CV**. *sine ratione*] *sive rationem* **MT**. *in corporibus—rationis*
om. **U**. *manus*] *manus efficiat* **HRV**$_1$**U**. *enim*] *autem* **B**. *nanctumque*] **B** [Or.'s **ACV**$^1$], *nactum* **C** [Or.'s **E**], *nactumque* **HRV Oxf. O** [Or.'s $V^2$].
*augerique*] *que* om. **B**. *fingat*] *effingat* Heind. from Cod. Glog. *quicque*]
**LM**, *quidque* **B**, *circumque* **H**, *quicquam* **O**. *possint*] **Oxf.**, *possent* **H** [Or.'s
82 **BCV**$^1$]. *nomine*] om. **H**, *nomina* **Oxf.** *appellent*] *appellant* **H**. *omnium*]
*omnia* $V_1$**U**. *sint*] *sit* **B**, *sunt* **HU**. *naturam*] *natura* **BV**$_1$, *in natura* **RU**.
*iis*] **B**, *his* **CRV**. *ut animal*] *aut animal* **B**. *ordo*] *odor* **B**.

83 XXXIII. *a*] om. **B**. *et arte naturae*] **LV**$_1$**UT**, *et arte* om. **H**, *arte non* **N**,
*et* om. **Oxf.** others. *ex*] *et ex* **UT**. *ipsaque*] *ipsa quoque* **T**. *externisque*] *extremisque* **H**, *aeternisque* **N**. *exspirationibus*] *expirationibus* **HMRV**,
*aspirationibus* **UNV**$_1$. *et aër*] *ether* **L**, *et* om. **CRV Oxf.** *alitur et aether*]
*ether alitur* **T**. *Ita*] om. **B** [Or.'s **C**], *item* $V_1$**U**. *sustinentur*] *substinentur*
**V**, *continentur* **TU**$^1$, text **U**$^2$. *nobiscum videt nobiscum audit*] om. **Oxf. MC**,
*ubicumque uiuit ubicumque audit* **N**, *nobiscum uiuit n. audit* **R**. *nobiscum sonat*,
*nobis consonat* **N**. *eorum*] om. **R Oxf.** *eo*] *ipso* **R**. *quacumque* (2nd)
84 **M Oxf.**, *qua* **BHLO**, *quocunque* **C**. *cedere*] *concedere* **HN**. *efficiunt*] om.
inserting *habent* after *naturam* **HTU**. *genera*] after *sint* **RV**. *inde*] *ex*
*aere* **V**. *naturis his*] **UT**, *naturae situ* **L**, *ex n. his* **N**. *sursus deorsus*]
*sursum deorsum* **U Oxf. HLCRV**, *sursum et deorsum* **N**. *citro*] *citroque* **LNV**.
85 *commeantibus*] *comeantibus* **BV**. *necesse est*] *necessest* **B**. *eodem*] *eadem* **B**.
*ad*] *aut* **B**. *aut quae*] *aut quaeque* **Oxf.** *conformatioque*] *confirmatioque*
**UHV**, text $V_1$. *ipse*] *ipsa* **B**. *igitur nihil*] *nihil igitur* Heind. from Cod.
86 Glog. *mundum*] *natura mondum* **H**, *natura mundum* **U**. *potest*] *post* **B**.
*administrari*] *administrati* **Oxf.** *si qui*] *siquis* **RVU**. *pubertatem*] *ubertatem* **HL**, *pubertates* **N**. *ea quae*] *eaque* **BO**. *ecferant*] **C**, *et ferant* **B**,
*conferant* **HNR**, *non conferant* **U**, *haec ferat* **ILOVT**, *nec ferant* **M Oxf.**, *efferant*
Klotz and others. See Corssen I 155. *iis*] *his* **BNRU**. *ecferantur*] *efferantur* **Z Oxf.**, except *afferantur* **L**, *ferantur* **T**.

XXXIV. *altor*] *actor* **HU**, *auctor* **I**, *alitor* **LN**. *membra et*] om. **NC.** *nutricatur*] *nutrit* **N.** *possit*] *posset* **R.** *iis*] *his* **BTU.** *iis enim natùris*] *his naturis enim* **Oxf.** *effici optimum pot.*] *optimum effici pot.* **Oxf.**, 87
*eff. pot. opt.* **UT.** *corrigere*] *colligere* **Oxf.** *faciet*] **MO**, *facit* **BHLC Oxf.** *non*] **Oxf. M**, om. **BHLOT.** *potuerit*] **BH**, *potuit* **MCORVU Oxf.** *desiderabit*] **HMO**, *desiderauit* **B**, *deliberabit* **Oxf.** *potuerint*] **Oxf.** +, *potuerunt* **VT**, text $V_1$. *ea fortuitane*] *ne* om. **V**, rest. $V_1$, *eane fortuita* **U.** *quo cohaerere*] *co quo herere* **B.** *ea* and *illa* om. **T.** *quam illa—ne natura*] om. **Oxf.** *perfecta*] *profecta* **IMNU.** *sunt*] om. **U.** *ne*] *nec* **HVT.** *Qui*] *quid* **HV**, text $V_1$. *procul cursum*] [*cur* in ras. Or.'s **A**], *procursum* **B**, *procul rursum* **H**, *procul sursum* **Oxf. MNCRV**, text $V_1$. *navigii*] *nauigium* **H**, *nauigium agi* **Oxf. MNCRV**, text $V_1$. *moveatur*] *moueat* **B.** *aut descriptum aut*] **NO**, *uel descriptum aut* **Oxf. UTBHILMCRV.** *complectatur*] *complectitur* **HV**$_1$. *expertem*] *expertes* **B** [Or.'s **C**]. *Scythiam*] *scyathiam* **B.** *Posi-* 88
*donius*] *Possidonius* **BCV Oxf.** [Or.'s **BE**]. *conversiones*] *conuersationes* **B**, *euersiones* **N.** *in luna*] *in* om. **R** [Or.'s $B^1$]. *barbaria*] **Oxf.**, *barbarie* **ILMRV**, text $V_1$. *dubitet*] *dubitat* **T.**

XXXV. *hi*] *hii* **Oxf.** *dubitant*] *dubitabant* **B.** *et oriuntur*] *et* om. **C** [Or.'s **C**]. *aut*] *an* **VT.** *ac*] *an* **HV**, text $V_1$. *imitandis*] *mutandis* **LNR.** *Atqui*] *atque* **BOMRV Oxf.** *Accium*] *Actium* **BCRV**, text $V_1$, 89
*Attium* Davies and others. *ante*] *autem* **C**, *antea* **Oxf.** *Argonautarum*] *argo nautarum* **Oxf.**, *ergo nautarum* **N.** *e monte*] *ex alto* **MRV**, *ex monte* $V_1$ [*et monte* Or.'s $A^1$]. *Tanta*] *tanto* **B.** *fremibunda*] **B Oxf.** [Or.'s **AC**], *tremebunda* **HN**, *fremebunda* others. *spiritu*] Priscian, *strepitu* **Z Oxf.** *volvit*] *euoluit* **ZU.** *undas volvit*] *evolvit undas* **Oxf.** *vertices vi*] *uertice sui* **H**, *uortices ui* **CV**$_1$. *respergit*] om. **H.** *reflat*] Priscian, *profluit* **Z Oxf. UT.** *ita dum*] *interdum* **T.** *nimbum*] om. **C.** *dum quod*] *denique* **T.** *quod*] *quid* **H.** *saxum*] *saxis* **Oxf.** *aut*] *vel* **Oxf.** *ictos*] *ullos* **H**, *actos* Bouhier. *nisi*] *ni* **MRV.** *conciet*] **BM**, *contius* **L**, *continet* **NO** (with 2nd *n* erased), *consciet* **C**, *concitet* **U**, *concitat* $V_1$. *evertens*] *uertens* **H.** *specus*] *spectus* **L**, *impetus* **N** [Red.]. *subter radices*] *sub terra dices* **Oxf.**, *sub radios* **H**[**G**]. *undanti in*] *undantes ueniant* **BHLO**, *undantes inuehant* **I**, *undantes invehat* **UT**, *undante uenire* **MCRV Oxf.**, *undantes uenire* **N**, *undante ui (in)* $V_1$. *ad*] **H**, *at* **BOCT** [Or.'s **AC**], *aut* **Oxf.** $T^2$**LMRV**, text $V_1$. *eruit*] **BHILOV**$_1$, *erui* **Oxf. TMNCRV.** *iuvenibus visis*] **BO** +, *iuuenis uiso* **CR**, *juvenis visu* **Oxf. M.** *sic incitati et*] Heindorf, *sic* on erasure **O**, *sicut inciti atque* **BHMRV Oxf.**, erased **T**, *sicut mari atque* **I**, *sicut mati atque* **L**, *sicut citi atque* **N**, *ait sicut* **C.** *alia multa*] after *ad* **C.** *Silvani*] **BMO**, *siluatu* **H**, *silua* **IU**, *siluam tum in* **N**, *siluam* **V**, text $V_1$. *melo*] **Oxf. BM**, *molo* **H**, *tumulo* **I**, *celo* **N**, erasure **O.** *consimilem*] **ILNOV**, *con-* 90
*simile* **BMR Oxf.**, *consilere* **H**, *consimile item* **C.** *cantum*] *causatum* **N** [Red.]. *inanimum*] *in animo* **N** [Red.], *animum* **C**, *in animum* **Oxf. R**, *inanium* **V**, text $V_1$. *motus*] om. **R.** *et moderatorem*] *ac m.* **C Oxf.**

XXXVI. *sita*] *sita est* **Oxf.** *animali*] Probus **Oxf.**, *animabili* **BHIMOCRV**, 91
*amabili* **L**, *amirabili* **N** [*admirabili* Red.]. *est enim*] *est est enim* **B**, *enim est* **C.** *aether*] Αἰθὴρ Clavel. *Mutuemur*] *metuemur* **BC.** *Pacuvius*] *placuvius* **Oxf.** *memoro*] *memores* **N**, *memoro inquit* **C.** *Grai*] *Graii* **CR** Baiter,

see Munro on Lucr. vi 424. aethera] Αἰθέρα Clavel. Graius] grauis
V, text $V_1$. loquitur] loquatur U. docet] dicet R. Graiugena]
gragiugena B, Gr. quid sit C, Graiumgena R. istoc] isto Z Oxf. aperit
92 ipsa] aperitur H, aperit ista Oxf., aperit jam U, erased T. rebusque] et rebus T.
hi] hii Oxf. mota] moti N, morta U.

93 XXXVII. ego] M, igitur OT, ergo Oxf. [Or.'s $V^2$]. non] om. LN [Red.].
mirer] BMO, miror HNT. existimat] BMO Oxf. $U^1$, existimet $HV_1U^2$. cur]
quur B [Or.'s A]. innumerabiles] Oxf. O, inenumerabiles BMR. unius et
viginti] undeviginti T by corr. qualeslibet] quaslibet U. coiciantur]
BN Oxf., coniciantur H, coitiantur I, coniiciantur CRV. Ennii] enni B [Or.'s
94 ACE], emi N. non colore] om. R. qualitate] quantitate Oxf. ποιότητα]
poeta B [Or.'s C], poetice tam H, poetica TO, poetae cocta N, poetoteta CV, poetota
Oxf., poeoteta $UV_1$ [Or.'s ABE] and others. concursus—non potest] om. L.
atomorum] athomorum Oxf. cur] quur (four times) B [Or.'s A]. urbem]
urbe B. ita] qui ita O. temere] caeli ornatum L. temere—ornatum]
om. Oxf. effutiunt] BM, efficiunt [Or.'s E] HLVUT, sentiunt NO, text $V_1$.
numquam] nunc B. admirabilem] ad mirabilem R. ornatum] conatum N.
95 semper] sem B. ornata] ornati B. iis omnibus] his omnibus UT Oxf. BV,
omn. hiis C. abundant] habundant Oxf. BHC [Or.'s $BC^2$, habundet $EC^1$].
ii] hi UBV, hii Oxf. et auditione] auditioneque opinione H, et auditione et
opinionem C. abditis] additis Oxf. nubium] nimbum MN, nimbium V,
text $V_1$. nubium—cognovissent om. U [Or.'s C]. eiusque] eius quem B,
ejus T, et ejus O. cum] tum U Oxf. RV, om. TO. pulchritudinemque] et
pulchritudinem U, et decorem L, decoremque T. tum] ventorumque tum U,
tamen, to end of section, C. etiam efficientiam] om. U. is] his B [Or.'s
$C^1E$], ut H. opacasset] occupasset HI. tum caelum—varietatem om. Oxf.
tum caelum totum] cum t. c. VU. ortus—in omni om. C. quae cum]
Oxf. U, cum haec ergo C.

96 XXXVIII. Aetnaeorum] aethnaeorum B, aethereorum I, ethneorum MCV.
agnosceret] cognosceret HIN. tum] tamen C, cum Oxf. lucem] luce B.
97 cotidiana] quotidiana BHRV Oxf. cum tam] Oxf. BO, tam om. MRV. inter
se omnia conexa] inter se conexa omnia C, omnia inter se connexa V. ge-
rantur nullo consilio] om. Oxf. H, gerantur n. officio LU (adding al. consilio),
geruntur n. c. C. videmus] videamus U. cum admirabili] BHMNCRV,
admirabili cum IL. videmus] uideamus ZU Oxf. anniversarias] aduer-
sarias IL. cum summa] tum summa Oxf. [Or.'s V]. excellenti] Z, excellente
Heind. from Bentley on Hor. Od. i 25. 17. But see Wesenberg on Tusc. iii 2.
98 3 referred to by Baiter. subtilitate] asubtilitate B. dicimus] diximus U.
constitutas] constituta Oxf.

XXXIX. Ac] A B. principio] prinpio B. sede mundi] mundi sede UT.
nutibus] notibus B, uicibus N. varietate] ueritate B. huc] hunc R,
huic L, adhuc C. perennitates] BMV, perhennitates C, peremnitates Klotz
retains, see xxi 55. altitudines] om. C. altitudines] (2nd) celsitudines
99 Davies if alteration is to be made. camporum] camparum B. varia]
uarie B. vel cicurum vel] uel cicurarum uel HN, et cicurum vel T, et
acurum L. pecudum] pecodum B. jam] om. T. operibus] om. Oxf.

*possemus*] **Oxf. HM**, *possimus* **BLO**, *possumus* **U**. *ac litorum*] *aditorum* **B**, 100
*delictorum* **N**, *et littorum* **V**. *disparia*] *dispersa* **LN**. *orarum*] *horarum*
**Oxf. U**. *ad saxa nativis*] **Oxf. M**, *ad saxa* om. **B**, *ad saxa sanatiuis* **H**, *ad*
*saxa senativis* **O**, *ad saxa sonatiuis* **L** (i.e. *ad saxosa nativis*). *appetens*]
*amplectens* **R**. *alludit*] **C**, *eludit* **Oxf. BHILMV**, *elludit* **N**, *elidit* **UV**$_1$, *cludit*
**OR**, erased **Υ**. *Exin*] **Υ Oxf.**, *Ex* **B** [Or.'s **V**$^1$], *et in* **MV**, text **V**$_1$, *Exinde* **U** 101
many Codd. of Moser. *mari*] after *finitimus* **CR**. *finitimus*] *finitimas* **B**.
*aer*] om. **Oxf. BMV**, rest. **V**$_1$. *tum fusus et*] *tum cursus* **H**, *concussus et* **ΥI**,
*cum fusus et* **V**. *sublime*] *in sublime* **ΥLCV**$_1$. *annuas*] *animas* **Oxf.**
*volatus*] *uolatum* **V**. *spiritu*] **Oxf. M**, *spiritus* **BHOVUΥ**, *specie* **L**.

XL. *coërcens*] *cohercens* **Υ Oxf. BLMNOR** [Or.'s **ACEV**$^1$], *cohaerens* **C**. *ora*]
**M**, *hora* **Oxf. BLO** [Or.'s **C**$^1$**V**]. *ordinatos*] *ordinatus* **L**, *determinatos* **RV**, text **V**$_1$.
*definiunt*] *diffiniunt* **CUΥ**. *E*] *ex* **HV**. *ipsam*] om. **C**. *diem*] *diemque* **B**. 102
*in intervallo*] **B**, *in* om. **Oxf. O** others. *contrahit terram*] **Oxf. O**, *contrahitur*
*terra* **B**, *contrait terram* **L**. *tum degrediens*] **Oxf.**, *tum digrediens* **UΥHMRV**, 103
*tamen disgrediens* **C**. *tum*] *tunc* **UΥ**. *incidens*] *incudens* **B**. *eae*]
*esse* **BC**, *hae* **Oxf. VΥ**, *ceterae* **V**$_1$. *eodemque*] *eodem* **B**. *quarum*] **Oxf.**,
*quorum* **MV**, text **V**$_1$. *saepe*] *tum* **H**, *tum saepe* **V**$_1$**UΥ**. *esse*] *nihil* 104
*prudentius* adds **L**. *inerrantium*] *inhaerentium* **V**, '*al. inerrantium*' **V**$_1$.
*maxima* om. **Oxf.** *notarum*] **BHOL**, *nota* **Oxf. MCRV**, text **V**$_1$.

XLI. *Arati eis*] **Oxf. BOLM**, *araneis* **H**, *eraticis* **N**, *Arateis* Walker. *iis*]
*his* **Υ**. *memoria*] *memoriam* **B**, *memorie* **H**. *nullius*] **Oxf.**, *nullus* **Υ** 105
[Or.'s **A**$^1$]. *arctoe duae*] **Oxf.**, *arcto edue* **B**, *archtoe duae* **H**, *arote duae* **L**,
*aratoe d.* **O**, *arctoae duae* **M**, *arthoe duae* **N** [Red.]. *his*] *iis* **B** [Or.'s **ACV**],
*eis* **Oxf.** *altera*] *alia* **LΥ**. *Cynosura*] om. **L**, *cinosura* **Oxf.** *Cynosura*] 106
om. **L**, *Cinosora* **C**. *Hac fidunt*] *hac fidei* **H**, *hanc fidem* **L**. *Phoenices*]
*fenices* **BV**, *feraces* **I**, *foenices* **V**$_1$.

XLII. *Et*] *ex* **LΥ**. *sit*] *fit* **LVΥ**. *admirabilior*] *mirabilior* **LΥ**.
*veluti rapido*] *rapido ueluti* **R**. *torvus*] *totus* **H**, *tortus* **R**. *subter supe-*
*raque*] **Oxf. MRV**$_1$, *subter supraque* **BINCV**, *subterque* **H** [Glog.], *subtus supraque* **L**.
*Eius*] *Cuius* **R**. *totius*] *treius* **L**, *totus* **Oxf.** *sit*] Schöm., *est* **Z Oxf. ΥU**. 107
*tum in primis*] Manutius, *tum* om. **Z Oxf.** *aspicienda*] **BHOL**, *suspicienda*
[Or.'s **V**$^2$] **Oxf. UMCRV**$_1$, *suscipienda* **VU**. *est*] om. **OL**. *Opstipum*] *osti-*
*pum* **N**, *obstipumque* **V**, *obstipum* **V**$_1$. *a tereti*] **Oxf. BLOV**$_1$, *arenti* **H**, *a*
*teretri* **I**, *aetherei* **MC**, *e tereti* **R**, *tereti* **V**. *reflexum*] *refligum* **H**, *reuulsum* **L**,
*reflexit* **V**. *figere*] **Oxf.**, *figurae* **LC**, *figure* **U**. *paulum*] *paululum* **Υ**. 108
*subitoque recondit*] **MBH**, *subito seseque recondit* **Oxf.**, *subiteque recondit* **L**,
*subditoque r.* **C**, *subitoque recondet* **O**. *partim admiscetur in unam*] *partim*
*admiscetur in una* **Oxf. UBHLMOC**, *parte ammiscentur in una* **N**, *partem admis-*
*centur in una* **R**, *partim miscetur in una* **V**, *parte admiscetur al. inmiscetur in*
*una* **V**$_1$. *defessa velut*] *velut defessa* **Oxf.** *maerentis*] *mentis* **N**, *merentis*
**V**, *nitentis* **Υ** by corr. *Engonasin*] *engonasiam* **Oxf. OBH**, *egonasiam* **U**, om.
**L**, ΕΝΓΟΝΑΣΙΑΜ **M**, *entonasiam* **C**, *eugonosiam* **V**, *engonosim* **V**$_1$. *vocitant*]
*nominant* **H**, *uocant* **LV**. *eximio*] *exequio* **Oxf.** *fulgore corona*] *fulgora*
*coronata* **B**, *fulgore Coronae* **R**. *Anguitenens*] *augur tenens* **C**. *Ophiu-* 109
*chum*] *ophuchum* **B**, *offugum* **L**, *Ophnin* **B**, *ophnicum* **V**, text **V**$_1$. *Grai*] *Graii*
**B**, *Graeci* **H**, cf. 91. *atque ejus*] *ejus et* **Υ** by corr. *torto*] *torgo* **B**, *toto* **HMN**.

*pectora*] **Oxf.**, *pectore* **HLMCR**. *Nepai*] *Nepum* **B** [*nepe* Or.'s **$A^1B^1$**, *nepii* Or.'s **C**]. *Septem triones*] [Or.'s **CE**], *s. trionem* **B**, *Septentriones* **Oxf. MCR** [Or.'s **ABV**]. *Arctophylax*] *arctofilax* **Oxf.**, *arolo filax* **B**, *Archophilax* **C**, *Arthophylax* **V**. *Bootes*] *botes* **B** (and *boti* below), *Boetes* **CV**, text **$V_1$**. *temoni*] Madvig, *temone* **Oxf. Z** (*th.* in **CV**). *adiunctam*] *adiunctum* **H**, *ad-*
110 *iuncto* **NTU**. *Dein quae*] *denique* **UHCRV**, *dein quaeque* **Oxf.** *huic*] *hinc* **U**. *enim*] *et enim* **MCRV**. *Booti*] om. **R** (reading *Huic et enim subter* as verse). *cui*] **CR**, *cuius* **Oxf. BOV** and others, *cuius pedibus* Davies.

XLIII. *demetata*] *demetita* **V**, text **$V_1$**. *discriptionibus*] **L**, *discreptionibus* **B**, *descriptionibus* **Oxf.** others. *sollertia*] *solertia* **CV** [Or.'s **BE**]. *invises*] **Oxf.**, *inuisses* **BM** [Or.'s **$ACV^1$**]. *mediae*] Grotius, *media* **Z Oxf. U**. *quatiens*] *quaties* **B**. *flammam*] *flamam* **LRV**. *obductus*] *obducens* **L**, *abductus* **C**. *feretur*] **Oxf.**, *tenetur* **H** [Or.'s **$V^2$**]. *Helicae*] *Elicae* **C**, *Helice* **Oxf.** others. *tuetur*] *uidetur* **LU** (adding *al. tuetur*). *At*] *Ac* **C** [*ad* Or.'s **$AV^1$**]. *capra*] *caput* **H**, *ca* **Oxf.** *clara*] *claro* **BHMLV Oxf. U** [Or.'s **CV**], *clare* **O**. *tum quae secuntur*] **B**, *atque sequuntur* (as end of line) **R**, *tumque sequuntur* **HV Oxf. U**, *cumque seq.* **O**. *Haedi*] *edi* **U**, *egi* **N**, *caeli* **V**, text **$V_1$**. *cuius*] *cui* **B**.
111 *conixus*] **C** (*connixus*), *conexus* **B Oxf. U**, *connexus* **HLMORVT**. *Eius*] *Cuius* **R**. *Hyadas*] om. **L**, 'Υάδας Clavel. *suerunt*] *feruntur* **HN**, *consueuerunt* **LVT**. ὕειν] *hiene* **B** [Or.'s **C**], *hiin* **C**, *hyin* **RV Oxf. U** [Or.'s **ABV**, *hian* Or.'s **E**]. *enim*] om. **U**. *Suculas*] **BO**, *Sicculas* **L**, *Succulas* **HMRV Oxf.** [Or.'s **V**]. *subus*] *sucibus* **B** [Or.'s **C**], *sub* **N**, *suibus* **CRVT**. *a subus essent*] *asubessent* **H**, *essent* after *imbribus* **C**. *minorem*] *minoris* **T**. *Septentrionem*] *septemtryonem* **R**, *septentrionis* **T**. *Cepheus*] *zepheus* **N**, *cipheus* **C**. *a tergo*] **C**, *terga* **Oxf. UTBILMOV**, *terge* **H**, *terra* **N**, *tergo* **R**. *ipse*] Davies, *ipsa* **MR**, *ipsum* **Oxf. UTO** others. *Cynosurae*] *Cynosura* **UBHLMORV**, *cinosura* **Oxf.** *Cassiepia*] **B** [Or.'s **ABCP**], *Cassiepeta* **H**, *Casside pia* **LO**, *Carsiepia* **Oxf. MV**, *Cassiopeia* **C**, *Cassiopea* **R**, *casiopia* **$V_1$**. *Hanc*] *Haec* **MCV Oxf.** [Or.'s **$V^2$**]. *Andromede*] Codd. Glog. Red., *Andromade* **T**, *Andromada* **ILNV**, *Andromeda* **Oxf.** others. *fugiens*] **UTMNRV**, *haud fugiens* **B**, *fugies* **H**, *aut fugiens* **IL**, *aufugiens* **Oxf. C**, *heu fugiens* Klotz. *aspectum*] *aspectu* **H**. *iubam*] *iubar* **H** [*jubas* **G** Heind.]. *contingit*] *contigit* **B** [Or.'s **$C^1E$**], *contingens* **C**. *nodum*] *mundum* **L**, *modum* **MV**, text **$V_1$**.

112 XLIV. *summa*] **BO Oxf. UT**, *summa ab* Codd. **BE** of Baiter. *propter*] *per* **T**. *genu* **LO Oxf. TU**, *genum* **B**, *genium* **H**, *genus* Priscian. *Vergilias*] **O**, *Virgilia* **H**, *paruas Virgilias* **L**. *Inde Fides*] *in fidem* **H**, *inde fidis* **L**. *et leviter*] *leviter et* **Oxf. LMOCRV**, *et* om. **BHIN**. *conuexa*] **Oxf. BV**, *connexa* **HILMOCRV$_1$**. *Avis*] *tuis* **B**. *lato*] *lata* **Oxf.** *proxima est*] Klotz, *proximat* **Oxf. UBILMOCRV**, *proxima* **H**, *proximant* **N**. *Aquarii*] *Aquari* **B**
113 [Or.'s **ABC**]. *capricornus*] om. **U**. *Hic*] **Oxf. UT**, *hinc* **O**. *ut*] om. **Z Oxf. UT**. *Scorpius*] **BHC**, *Scorpios* others. *plexum vi*] **BLO Oxf.**, *plexum in* **HMV**, *plexumque in* **R**, text **$V_1$**, *flexum vi* Dav. *pennis*] **LM**, *plumis* **HN** [**G** Red.], *pinnis* others. *Aquila*] **BHO**, *Aquilam* **MCRV Oxf. U** [Or.'s **V**].
114 *ardenti cum*] *ardentium* **B**. *obliquo*] *oblico* **BL** [Or.'s **C**], *aliquo* **H**. *Lepus*] *lupus* **HV**, text **$V_1$**. *subsequitur*] **BOMT Oxf.**, *sequitur* **HNRV**. *Pisces*] *Piscis* **HV** [Or.'s **P**]. *inlustri*] **BM**, *illustris* **TLOV**, text **$V_1$**. *manantem*] *manentem* **HV**, text **$V_1$**. *aspicies*] *aspiciens* **H**, *aspicies totum* to complete

the verse **R**. *Nepae*] **HO Oxf.**, *Nempe* **BLV** [*nepe* Or.'s **AC**], *Nepam* **R**, text $V_1$. *cernes*] **Oxf. MO**, *cernens* **BHL**. *permulcet*] *promiserat* **Oxf.** *propterque*] *propter quam* **Υ**. *Cedit*] *Caedit* **V**, *redit* **Oxf.** *subiungere*] *submergere* **MRVU** (by corr.). *Chelis*] *cetis* **Oxf. UBLMOCRV**, *coetis* **H**, *tectis* **N**. *hic*] *hinc* **U**. *porgens*] **BM**, *porrigens* **Oxf. ΥULHOV**, *pungens* **N**. *qua*] *qui* **B**. *vasta*] *austa* **B**, *usta* **HOLΥ**, *iusta* **Oxf. UMCV**, *uita* **N**, text $V_1$. *truculentus*] *truncu-lentus* **B**, (lacuna) *lentus* **H**. *cedit*] **Oxf. BM**, *tendit* **H**, *caedit* **V**. *infernis*] **BHO**, *inferni* **MNCR**, *ex inferni* **Oxf.** *e*] **BHNO**$V_1$, *de* **Oxf.** others. *Hydra*] *ydra* **Oxf.** *Cratera*] *crathera* **HR**, *cetera* **L** [*cretera* Or.'s $V^1$ Nonius]. *tundit*] $V_1$, *tendit* **Z Oxf.** *Ante Canem*] **Oxf. BOM**, *anticanem* **H**$V_1$. *Pro-cyon* **B**, *prochion* **UHCOV**, *prochyon* **M**$V_1$. *ex*] *et* **U**. *cursantibus*] *con-* 115
*cursantibus* **RV** [*cursitantibus* **G** Red. Heind.]. *aut*] *at* **MRV Oxf. U**, *ac* **C**. *alia quae*] **Oxf. BHO**, *quae alia* **UMCRV**. *sint*] *sunt* **LU**. *possunt*] *possint* **N**.

XLV. *haec solum*] om. **Oxf.** *ne excogitari*] **Oxf. O**, *ne cogitari* **B** [Or.'s **C**]. *quasi quodam*] *quodam quasi* **UΥ**[**G**]. *circumdato*] *circumdata* **LV** [**Asc.** Heind.]. *natura*] om. **Oxf.** *per*] *per naturam* **Oxf.** *ad medium rapit et convertit*] *uertitur* **L**. *partibus*] *pubus* **Oxf.** *id*] *idem* **H**[**G**]. 116
*medium*] **Oxf.**, *medium et* **H** [**G** Or.'s $V^2$]. *infimum*] **Oxf.**, *infinitum* **LN** [Or.'s $A^1$]. *quo*] **OL**, *quod* **B** [Or.'s $B^1$**C**]. *aequabiliter*] **B**, *aequaliter* **VO** [Or.'s **C**]. *sublimi*] **Z Oxf. UΥ**, *sublimis* Cod. **B** of Baiter. *tamen*] *tum* **C**, *non* **Oxf.** 117
*ipse fundit*} *effundit* **Υ**. *uinctus*] *junctus* **R**, *conjunctus* **U**. *aetheria*] **B**$O^2$, *aethera* $O^1$**HMCV**, *aether* **RU**, *aetherea* $V_1$.

XLVI. *se et nisu*] *se et iussu* **N**, *se* om. **C**, *et se nixu* **RV**. *globata*] **Oxf.**, *conglobata* Cod. Glog. *figuraque*] *figuras et* **MR**, *figuraque et* **V**, *figura et* $V_1$. *sustentant*] *sustentat* **B**, *substentant* **V**. *formis*] *fortuna* **MR**. *natura*] 118
*naturae* **BU** [Or.'s **C**]. *flammeae quocirca terrae*] om. **B** [Or.'s **C**]. For *flam-meae*, *flameae* **LV**, *flamineae* **U**; for *quocirca*, *quo cuncta* **N**. *iis*] *his* **Oxf. ΥUV** [Or.'s **X**]. *ex*] *et ex* **U**. *altae*] *alitae* **HNU**, *allotae* $V_1$. *refundunt*] *refundat* **BHLMOCRV Oxf.** *eadem*] *eodem* $V_1$. *rursum trahunt indidem*] **B**, *rursum trahat in diem* **H**, *rursum trahunt in idem* **MLV Oxf. ΥU**, *r. t. inde* **O**, *cursum trahunt in diem* **N**, *in idem trahunt rursum* **C**, *rursum trahat in Idiem* **R**. *aut*] **HOL**, *ut* **BM Oxf.** [Or.'s **CEPV**], *nisi* **C**$V_1$. *paulum*] **MRV**, *paululum* **UΥBHILNOC Oxf.** $V_1$. *astrorum*] *astorum* **B**. *consumit*] *consumat* **Z Oxf. UΥ**. *nec remearet*] *neque r.* **UΥ** Ernesti. *exhausta*] *exausta* **B**. *re-linqui*] *relinquit* **LU**. *renovatio*] *reuocatio* **H**$V_1$ Probus. *oreretur*] *oriretur* **HLNCVU**. *maximeque*] *que* om. **B** [Or.'s **C**]. *dissimillimis*] *dissimilibus* 119
**LN** [**G** Red.]. *refrigeret*] *respigeret* **B** [Or.'s **C**$V^1$]. *media*] om. **Oxf.** *incendat*] *incedat* **B**. *iis interiecta*] *is intecta* **B**, *his interiecta* **RV Oxf. U**. *oboediant*] *obediebant* **H**, *obediunt* **Oxf.** *omnem*] om. **Υ**. *ab eoque*} *Ha-beoque* **B**. *adferat*] *auferat* **LU**. *gignendi*] *gignedi* **B**. *incolumitatem*] *incolom.* **B** [Or.'s **AC**]. *coagmentatio*] **Oxf. B**, *coaugm.* **HMOCV**, *coaugum.* **LN**. *movet*] *commouet* **UΥMRV**$_1$ [Med. **Asc.**], *commoueatur* **C**, *commouetur* **V**. *horum*] *chorum*] **Oxf.** *certo*] *certos* **B**.

XLVII. *rebus*] om. **LΥ**. *terrestres*] *terrestria* **LNΥ** [Red.]. *quid est*] 120
*quidem* **B**. *non*] om. **B**. *iis*] *his* **Oxf.** *sustinentur*] **Oxf. ΥBHOL**,

*sustinent* MV. *sucum*] *succum* BCR. *alantur*] *aluntur* T [Or.'s P].
*que*] om. Oxf. *trunci*] om. H [Or.'s P], *trunchi* L. *sint*] *sunt* T.
*caloribus*] *coloribus* B. *adminicula*] *aminucula* B, *ad uincula* N, *amminicla*
Oxf. *ita se*] BCRV, *se ita* others, om. H. *animantes*] *amantes* B.
*caulibus*] Dav. Oxf., *c. brarsicis* B, *c. brasicis* HN, *casibus brasicis* I, *c. brassicis*
LCO, *c. brassicisque* MRVUT. *si propter sati*] HM, *propter sati* Oxf., *sipportet*
*satis* B, *si oportet sati* LC, *si opportet et sici* O, *si populati* NV, text $V_1$. *sint*]
121 *sunt* HN. *vero*] om. B. *vis*] *jus* Oxf. *ut*] om. U. *quaeque*]
*quaque* B. *quaeque genere*] *genere quaeque* Oxf. *permaneat*] Oxf. BHLO,
*permaneant* MCRV. *sunt*] om. Oxf. *alias alias squama*] *aliae squama*
*alias* Oxf., *alias squama alias* UT. *obductas*] *obductus* B. *pennarum*]
*pinnarum* B. *pastum*] *partum* B [*pastus* Or.'s $AB^2$]. *natura*] after *eum*
C, before *large* RV. *qui cuique*] *quicunque* HMRV, *qui* om. C. *erat*]
*esset* H, *est* T. *capessendum*] *capescendum* BR. *supervacaneum*] *super-*
*uacuaneum* B [Or.'s AB], *supervacuum* UT. *detinendam*] Oxf. U, *retinendam*
122 ILT. *non necessarium*] *noncessarium* B. *pastus*] *partus* Oxf. *aliorum*
*ea est*] *aliarum ea est* B, *eorum alia* T, *eas aliorum et* H, *aliorum alias* LO, *aliorum*
*eas et* Oxf. MRV, *alia se* C. *humilitas*] *humiliatas* LORV, *humiliora* T, *humi-*
123 *liant* C. *altiora*] *altiores* N. *cygni*] *cioni* B, *cigni* M, *signi* C. *ut*
*cameli*] *ut camelli* BL [Or.'s $ACV^1$], *ac cameli* H. *data elephanto est*] B, *data*
*elephantis* HMNCRV, *data elephanti* Oxf., *datas elephantes* I, *datas elephantis* LO,
*data est elephanto* $V_1$. *habebat*] Oxf., *habebant* H, *habeat* MR, *habeant* CV.

XLVIII. *alius*] Oxf. HOL, *alterius* $V_1$, *aliis* B. *bestiis*] HOL, *escis* Oxf.
BMCRV, text $V_1$, om. T. *celeritatem*] BHO, *celeritas data est* M, *celeritas*
[Or.'s $V^2$] Oxf. CV, text $V_1$. *data est*] *data est etiam* Oxf. [G Red. Heind.].
*atque sollertia*] *ad sollertiam* Oxf. *rete texunt*] Oxf. BOM, *retexunt* H [Or.'s $A^2$],
*recte texerunt* L, *rethe texunt* C [Or.'s E]. *ut*] BHO, om. LMCV Oxf. *ex*
*inopinato*] B, *in ex opinato* H, om. O. *Pina*] *pinna* H. *grandibus*] *grandibus*
*dicitur* Oxf. *coit*] Oxf. BHM, *contrahit* LUTO. *pisciculi*] *pisculi* MV,
*piscicli* C, text $V_1$. *hiantem*] *hi autem* B. *innataverunt*] Oxf. BO, *inna-*
*tauerint* HLMCRVUT [Or.'s $B^2V^2$]. *a squilla*] ILOT, *squilla* Oxf. M others
except *sequilla* H. *pina*] O, *pinae* Oxf. ULMCV, om. Baiter. *morsu*]
124 Oxf. OHM, *morsus* B. *dissimillimis*] *dissimilibus* U. *natura ipsa*] Walker,
*nature ipse* Oxf. BLNO, *naturae* HMRV, *naturae ipsae* $ICV_1TU$. *sint*] Oxf.
HOM, *sunt* B [Or.'s $A^1CE$]. *iis*] *his* UV, *hisque* Oxf. *crocodili*] *cocodrilli*
Oxf. *fluviatilesque*] *fluuialesque* $V_1U$. *niti*] *noti* B. *anatum*] MHOUT,
*anetum* Oxf. BI. *saepe*] om. HT. *primum*] BOM, *primo* HLC Oxf.
*iis*] RV, *his* Oxf. U others. *fotique*] *ortique* H, *fetique* L. *eas*] *eos* B.
*sui*] *in* Oxf.

XLIX. *platalea*] BHM, *platanea* L, *plantalea* N [Red.], *plantanea* O [*platelea*
Or.'s C]. *advolantem*] BHLO, om. MR, *ad eam voluntatem* Oxf. [*ad volun-*
*tatem* Or.'s $V^1$]. *emersissent*] *mersissent* Oxf. *mordicus*] *mordicis* B,
*mordicans* L. *in quod*] Walker, *id quod* Z Oxf. UT. *haec*] om. HMCR.
*avis*] *cius* B, cf. 112. *easque*] COV Oxf., *eas* others, *eaque* L. *calore*]
125 *colore* B, *calor* N. *ita eligere*] after *iis* C, *ex his el.* T. *ex iis*] *ex his*
Oxf. U, om. T. *moveri*] *movere* T. *cum*] *tum* Oxf. *accesserint*]
*accesserunt* HN [Or.'s P]. *nanctus est ova*] *natos torua* N, *nactus fuerit* U.

*pleraque*] Oxf. HO, *plera* B, *pluraque quae* C. *quis*] *quiuis* B, *uis* Oxf. HMNOV, *quis non* C, text $V_1$. *non mirari*] *nominari* HN Oxf. *transmittant*] (lacuna) *mutant* H, *transmeant* UTLN, *transmittunt* V. *trianguli*] *triangula* B. *efficere*] *efficiunt* $LU^1$, text $U^2$. *formam*] *forma* B. *form. triang.*] *triang. form.* UT. *aer ab iis*] *aera bis* M, *aer ab is* Oxf. U. *sensim*] *sensum* Oxf. U. *quem*] $V_1U^2$, om. C, *quam* $TU^1O$ others. *a puppi*] *appupi* B. *eaeque*] O, *ea eque* Oxf., *ea aeque* HMV [Or.'s V], *eas* B, *esseque* C. *quia*] *autem* B. *ipse*] *ipsa* C. *ubi nitatur*] MBO Oxf., *cui innitatur* H, *cui nitatur* $NV_1$. *ipse*] *ipsa* C. *succedit*] *succedunt* UT. *ex iis*] om. C. *adquierunt*] HO [Or.'s $CEV^2$], *adquirunt* B [Or.'s $ABPV^1$], *assequitur* MCRV Oxf. [Or.'s V marg.], *acquieuerunt* $NV_1$. *delitiscant*] [Or.'s ABC], *delitescant* 126
Oxf. BMCRV, *delirescant* L.

L. *Atque*] Z Oxf., *at quam* Baiter. *illa*] *ea* NC. *quid ea*] *quam ea* H, *que ea* I, *quod ea* BLMRV, '*al. quid*' marg. M, om. C. *vomitione*] *uocitatione* HN[G]. *canes*] *canis* UV, *canescunt* Oxf. *purgatione*] $V_1$, *purgante* BHR, *purgantes* ILO, *purgare* Oxf. MNV, *purgari purgare* C, *purgant* U, erased T. *autem*] M, om. HILNOVU. *alvos ibes*] O by corr. fr. *alios ib.*, *alvo' sibes* Oxf., *aluo sibi* B, *alios ibes* N. For *ibes*, *ibides* H, *ibis* MR, *ybes* V. *caperentur*] BL, *carperentur* HMOCV Oxf. U, text $V_1$. *cum*] LBO Oxf., *ut* MRV, text $V_1$. *capras*] *captas* H, *capreas* $V_1U$. *dictamnus*] *ditamus* H, *diptomnus* Oxf. *vocaretur*] *quaeretur* N, *uocatur* $V_1T$. *excidere dicunt*] *dic. exc.* C, after *e corpore* UT. *perpurgant*] MH Oxf., *perpungant* B, *purgant* 127
$LNOV_1TU$. *illa*] *illam* B. *vim—metum*] Oxf., transpose CRV. *defendat*] Oxf. BM, *defendant* HOCU, *defendunt* T. *morsu*] M, *cursu* BHLON, *incursu morsu* Oxf. *aliae fuga se*] om. Oxf. *se*] om. RV. *tutantur*] L adds '*Nam Martialis dente timetur aper defendunt cornua cerui, Imbelles damae quid nisi praeda sumus*' (XIII 94). *atramenti*] *at tamen* L, om. T. *insectantes*] BOL, *insectatores* H[G]. *odoris*] *odorem* U. *intolerabili*] *intolerabilis* C, *intolerabilem* T. *foeditate*] *feditate* V, *fœditatem* T.

LI. *esset ornatus*] *orn. es.* UT. *adhibita cura est*] *adh. est cura* C, *est cura adh.* Oxf., *cura est adh.* UT. *a*] om. UT. *a terra*] *aterrae* B, *a terrae* HOL [G Or.'s CP], *altae aut radicibus a terra aut* UMCRV [*alterae rad. aut stirp.* Or.'s V marg.], *altae radicibus aut stirpibus a terra* Oxf. *uno*] *semine uno* LU. *in*] *ut in* Oxf., om. T [Or.'s P]. *stirpe*] *forte* B. *in*] *etiam* 128
*in* U. *mari*] *mare* NCR. *commiscendorum*] *comisc.* B. *mirae*] *inire* HIN. *saeptum*] *septum* Oxf. *cum*] *eum* B. *iis*] *his* Oxf. U. *sollertisque*] *sollertiisque* B. *iis*] Oxf., *his* U. *easdem*] om. UT. *eae*] *hae* V Oxf. UT. *pauca gignunt*] *paucae gignuntur* Oxf. *iis*] *his* Oxf. UT. 129
*procreaverunt*] *procreauerint* MRV. *aiunt*] Z Oxf., *alunt* all Baiter's MSS. *genuerunt*] *genuerint* Oxf. UTL, *genuere* R.

LII. *crocodilos*] O, *crocodillos* BV, *cocodrillos* H, *corcodriolos* N, *crocodrillos* C, *corcodillos* Oxf. *educantur*] *educuntur* Oxf. *construunt*] Oxf. BO, *conficiunt* N, *constituunt* V, text $V_1$. *possunt mollissime*] *mollissime possunt* Oxf. *facillime*] *facile* UT. *e*] BCR, *ex* others. *excuderunt*] O, *excluderunt* B, *exciderint* HI, *excuderint* LT, *exterint* C, *excluserint* Oxf., *excluserunt* UM others. *pennis*] Oxf. U, *pinnis* B. *a sole*] BHM, *soli* ILOVU. *pulli pennulis*] Oxf.

130 U$B^2$, *pulli pinnulis* $B^1$MR, *pulli penniculis* HN, *pinnis pulli* C. *ad*] Ernesti,
*etiam ad* Oxf. UZ, except *et ad* L. *procuratione*] *procreatione* IL. *abun-*
*dantiam*] *hab.* C [Or.'s CE$V^1$]. *obrutam*] *obruptam* H, *ob uitam* C, *obrutam*
*terram* U. *tenuit*] *tenuerit* LVUT. *efficit*] *facit* T. *agros ad se-*
*rendum*] BH, *ad serendum agros* CRV. *quasi*] *quasique* Oxf. *eos*] *ipsos*
N, om. CR. *secum*] om. CT. *similium*] om. LT, *simillimum* Oxf. M, *et*
131 *similium* N, *simillimam* C. *possum*] *possem* T.

LIII. *tam iucunda*] *tam iocunda* $B^2$L, *tam icconda* H, *et tam iocunda* Oxf.
UMC, *et tam iucunda* R, *et iocunda* V. *iis denique*] *is denique* Oxf., *his*
*denique* HUT, *iisdemque* MCRV [Or.'s A, *isdemque* Or.'s B], text $V_1$. *Etesias*]
132 *eth.* Oxf. CV [Or.'s $V^2B^1$], text $V_1$. *multum*] Z, *cultus multum* Oxf. *salinae*]
133 *salina* C, *salinea* B. *ora*] *hora* Oxf. O, *bora* B. *sin quaeret*] Oxf. UTZ,
except *hic* for *sin* C. *molitio*] *mollitio* B. *mutorum*] Dav. from his
'Eliensis' so Cod. Glog. and $\psi$, *mutarum* Z Oxf. Baiter. *quis*] om. Oxf.
*scilicet*] *solum* Oxf. *est*] om. Oxf. *praestet*] BHM Oxf., *praestat*
LORU (by corr.), *praeest* N. *fit*] *sit* B. *in eo*] OL, *in eo mundo* Oxf.
BHMRV, *in mundo* C, text $V_1$. *sint*] *sin* H, *sunt* COL.

LIV. *intellegetur*] R$V_1$, *intelligitur* others. *si erit*] *fuerit* N, *sic erit* U.
134 *perfectio*] *profectio* B [Or.'s CE]. *constructis*] BOL, *constitutis* H, *constrictis*
Oxf. MCR, '*al. constitutis*' $V_1$. *atque ab his extenuatur*] BHOLM, *atque ex-*
*tenuatur ab iis* Oxf. *molitur*] LO, *mollitur* Oxf. BHMRV, text $V_1$. *acuti*]
BM, *acuto* UTO$V_1$, *cuti* Oxf. *genuini*] *camni* (*canini*) H, *genuvrii* I, *gemini*
135 NC Oxf. *quae*] *quaeque* Oxf. *ore.* *Is* Manutius, *oris* Z Oxf. *tonsillas*]
*tossillas* BHLV, *tosillas* Oxf. M$V_1$. *detrusum*] *detritum uel detrusum* L.
*cibum*] om. HT. *accepit*] om. T. *eae quae*] HM, *eque* B, *hae quae* UTC,
136 *eae* om. LOV, *ea equae* Oxf. *ostium*] *ostrum* B, *hostium* RVU. *eam quae*
*ducta est spiritu*] *eam quae dicta sit spiritus* BC, *eam quae ducta sit spiritu*
UTOHL$V_1$, *eam qua eductus it spiritus* Oxf., *ea qua eductus sit spiritus* MV, *eaque*
*eductus sit spiritus* N, *eam qua eductus sit spiritus* R. *eandemque*] *eademque*
MCRV Oxf. *quodam quasi*] *quasi quodam* UT. *tegitur quodam*] *tegi-*
*turque* MRV, *quodam* om. C. *operculo*] *aperculo* B, *e periculo* L. *eam*]
BHO, *quam* [Or.'s V] Oxf. MV, text $V_1$. *ne si quid*] BHO, *nisi quod si* MV,
*nisi quid si* Oxf. C, *ne si quid si* $V_1$. *incidisset*] Oxf., *incidissent* MCV, text $V_1$.
*ducant*] B, *adducant* HLMCV Oxf. U (by corr. fr. *ed.*), *adducunt* O. *constat*] B,
*constant* HLMOCR Oxf. *recepit*] L, *recipit* Oxf. U others. *id mutari*]
*id mutari facile* L, *immutari facile* UT. *mutari et concoqui*] *mutarier concho*
*qui* Oxf. *et conc. poss.*] *poss. et conc.* UT. *eaque tum*] *eaque autem* B,
*eaque tamen* C. *relaxatur*] *relaxantur* B. *accepit*] BHLV Oxf., *accipit*
others. *ut facile et calore*] M Oxf., *ne facile calorem* H, *ut f. et calorem* LO.
*et terendo*] Oxf. BHM, *exterendo* LOVT, *et exteriendo* N, text $V_1$. *concocta*]
Madvig, *coacta* U$T^1$IL$V_1$, *cocta* Oxf. BO$T^2$ others. *atque*] *et* C Oxf.

LV. *raritas*] *rarita* BC. *adsimilis*] *assiduis* MV, text $V_1$. *mollitudo*]
*multitudo* N Oxf. *hauriendum*] *aur.* B. *tum se*] om. H, *tamen se* C,
and *tamen* for *tum* before *in.* *in respiratu*] Lambinus, *in re spiritu* B, *se*
*spiritu* UHMCRV, *spiritu se* Oxf., *in spiritu* O, *se in spiritu* TIL, *se in spiritum* N.
137 *autem alvo*] BOM, *alvo autem* Oxf., *autem et aluo* HIN, *autem alio* L, *alvo* om.

Davies and Baiter. *secretus*] *secreta* **MV**, text $\mathbf{V}_1$. *a*] **Oxf. BHO**, om.
**MRV**, *ex* **C**. *permanat*] **BHO Oxf.**, *permeat* **MRV**, text $\mathbf{V}_1$. *usque ad*]
*usque* **Oxf.** *appellant*] **U**, *appellantur* **HMCR Oxf.** *ad iecur eique*] **Oxf.**
**BM**, *iecori quae* **H**, *iecorique* **LO.** *a*] *e* **B.** *dilapsus*] *lapsus* **Υ.** *secreta*
*bilis*] *secretabilis* **Oxf.** *profunduntur*] *perfunduntur* $\mathbf{ΥU}^1$, text $\mathbf{U}^2$. *san-*
*guinem*] *sanguine* **B.** *easdemque portas*] *easdemque partes* **CR**, *easdem partes*
**V**, text $\mathbf{V}_1$. *eius uiae*] *uiae eius* **CU.** *jam concoctusque*] Madvig, *j.*
*coactusque* **UΥZ**, *jamque coactus* **Oxf.**, *j. coctusque* Walker. *reliquiae*] *reli-* 138
*qui* **Υ.** *haud*] *aut* **B.** *dictu*] **MO**, *dictum* **Oxf. BHΥ**, *decori* **L.** *in-*
*iucunditatis*] *inioc.* **UΥ Oxf. BCV**, *ioc.* **N**, text $\mathbf{V}_1$. *Nam quae*] *Namque* **HC.**
*ipso ab*] **Oxf.**, *ipsum ab* **B**, *ab ipso* **UΥCV**, *ipso at* $\mathbf{V}_1$. *contagione*] **BLO**,
*coagitatione* **HMCRV Oxf. U.** *parte—cordis*] om. **U.** *quadam*] *quoddam* **B.**
*quem*] **V**, *quam* **Oxf. O** others. *illam cavam*] *c. i.* **UΥ.** *ex his*] *ex iis* **Oxf.**
*diffunditur*] *infunditur* **LΥ**, *confunditur* **C.** *ad artus*] *ad* om. **M.** *ad* 139
*omnem*] *ad* om. **R.** *corpore toto*] *toto corpore* **HNC.** *tracti et profecti*]
Edd. Ascens. and Basle, *tractae et profectae* **Oxf. UΥZ**, except *tractatae et per-*
*fectae* **O**, *tractae et perfectae* **H**, and *tracti et profectae* **C.**

LVI. *intellegatur*] *intelligantur* **H[G].** *hominibus*] *omnibus* **B.** *quae*] 140
Victorius, *qui* **Z Oxf.** *erectos*] **BHOL**, *rectos* **MCRV Oxf.** [Or.'s **V**]. *con-*
*stituit*] **B**, *constituerunt* **O.** *cognitionem*] *cognitione* **C**, *cogitationem* **R.**
*ex terra*] *extra terram* **H[G]**, *exempla* **I.** *animantium pertinet*] *pertinet*
*animantium* **Oxf. U.** *fungantur*] *funguntur* **U.** *percipere*] *recipere* **MCRV**, 141
text $\mathbf{V}_1$. *sublime*] Dav., *in sublime* **Z Oxf. UΥ.** *et quod*] **Oxf. BHM**, *eo*
*quod* **ILOV.** *supera*] **Oxf. BHO**, *superiora* **MRVΥ** Heind., text $\mathbf{V}_1$. *secutae*
*sunt*] *sunt secutae* **Oxf.**, *sequutae s.* $\mathbf{B}^1$, *consequutae s.* $\mathbf{B}^2\mathbf{H}$ [**G** El. Red.]. *gus-*
*tatus*] *gustus* **BILNC** [**G** Red.]. *debet*] **ILNO**, *deberet* **Oxf.** $\mathbf{BMCRV}_1$, *debent* **HV.**
*esculentis*] *exculentis* **B.** *potulentis*] *poculentis* **CRV.** *minimos*] *nimios*
**Oxf. BHLOMNCR**, *minios* **V.** *appulsus*] *apulsu* $\mathbf{B}^1$, *apulsus* $\mathbf{B}^2$. *possimus*]
**Oxf.**, *possumus* **M.** *ut*] om. **B.** *avertunt*] *aduertunt* **HMR.** *aman-*
*davit*] **BL**, *mandauit* **HO**, *amendauit* [Or.'s $\mathbf{V}^2$] **MV**, *emendavit* **Oxf.**, *ablegauit* **C.**

LVII. *persequi*] *prosequi* $\mathbf{HLNU}^1$, text $\mathbf{U}^2$. *membranis*] *in membranis* 142
**Oxf.** *continerentur*] *continerent* **U.** *qua*] *quae* **B**, *quam* **H.** *pupula*]
**Oxf.**, *pupilla* **HMNCRVΥU**, *popula* **L** [Or.'s $\mathbf{B}^1\mathbf{C}^1$]. *possint*] **BMO**, *possunt* **CH**
[Or.'s **CE**]. *mollissimae tactu*] *mollissima et actu* **B**, *maxime tactu* **H**, *molles*
*tactu* **N.** *factae et*] *factaeque* **Oxf.** *pupulas*] **B Oxf.**, *pupillas* others.
*ad aperiendas*] *ad* om. **B** [Or.'s **C**]. *maxima*] *magna* **L Oxf.** *Munitaeque*] 143
**Oxf.**, *munitae* **MCRV.** *coniventibus*] **Oxf. M**, *conluentibus* **BH**, *confluentibus*
**LNO.** *ut qui*] **Oxf. Z**, except *ut* **O**, *qui* **B**, *qui ut* **U.** *utiliter*] om. **H[G].**
*et excelsis*] **Oxf.**, *et* om. **BH** [**G** Or.'s **C**]. *saepiuntur*] *sapiunt* **L**, *sequuntur* **Oxf.**
*obducta*] *inducta* **H**, *adducta* **V.** *a fronte*] [Or.'s $\mathbf{B}^2$], *fronte* **Oxf. BHMRV**,
*a capite fronte* **O**, *fronde* **C.** *inferiore*] *interiori* **H**, *inferiori* $\mathbf{LNV}_1$. *leniter-*
*que*] Walker, *leuiterque* **Z Oxf.** *nasusque*] **BO**, *nasus* **HLMCRV Oxf. UΥ** Probus.
*ita locatus*] **BOM**, *itaque collocatus* **H**, *itaque locatus* **L Oxf.** $\mathbf{UΥ}^1$, text $\mathbf{Υ}^2$, *itaque*
*qui diductus* Prob. *e somno*] *a somno* **B** [Or.'s **C**], *e sono* **N.** *intrare*] *in-* 144
*trari* **B.** *inhaeresceret*] *haer.* **B.** *tutandique*] *et tutanti* **Oxf.** *adiectae*]
*additae* **N**, *auditae* **C.** *ab iis*] *ab his* **Oxf. UZ.** *corneolos*] *cerneolos* **B**,

*al. corneolos* marg. B, *corneos* HN [G El. Red.]. *cum flexibus*] *conflexibus* HNV [Or.'s A]. *quocirca et*] *quicirca* B [*quocirca* Or.'s C]. *soni re-*
145 *feruntur*] *referuntur soni* C, *soni* om. Oxf. UTO others. *pervadere*] *euadere* BG. *inutilem*] Oxf. OM, *utilem* B, *inutiliter* HN, *inutile locum* L. *omnisque*] Oxf. HM, *omnis qui* B, *omnesque* O.

LVIII. *iis*] *his* BVUT Oxf. *corporum etiam*] *c. et* Oxf. *decentiam*]
146 *decentia* B, om. C. *timidumque*] *tumidumque* B. *iudicatur*] *iudicantur* H[G]. *varietas*] *uarietates* HL[G]. *fuscum*] *fusum* BT. *leve*] Oxf. BOM, *lene* HLRV. *et parte tangendi*] UTHL in ras. $O^2$, om. B. For *et parte*, *et partes* $O^1$, *et partim* I, *arte et* MR Oxf., *et aperte* V, *et apte* $V_1$.

147 LIX. *prudentiam qui*] *prudentiamque* T. *is his*] Oxf., *is* om. TBCV, *is suis* $HV_1U$. *ipsis*] *ipsius* HU. *dum*] *cum* TU. *disputarem*] Oxf. HOLM, *spicuarem* B [Or.'s C], *al. specularer* marg. B. *vellem*] N, *uelim* Oxf. B others. *illa modo*] *modo illa* UT. *illa*] *illam* B. *esset*] *esse* H Oxf. *videlicet*] Oxf. BO, *videbis* H, *uideliciet* V, text $V_1$, *iudicamus videlicet* Vahlen. *efficiatur*] Oxf., *conficiatur* $LU^1$, text $U^2$, *dicimus* adds C. *idque*] *idque et* UTO. *ratione*] *rationem* H Oxf. *definimus*] *dif.* B, *diff.* HCVUT. *et qualis*] Schöm., *et* om. Z. *ne*] *nec* U. *quae*]. *qua* B. *atque*] *et* U.
148 *quamque*] *quam* B. *restinguimus*] *restringuimus* B, *restringimus* NCV [Or.'s CE]. *societate*] *sociate* B. *devinxit*] *disjunxit* Oxf. *a vita inmani et fera*] *autem uitam humanam et feram* H [*eadem vitam humanam et feram* G].
149 *ubi*] NR, *nisi* Oxf. TBHILMOV. *machinata*] after *natura* CUT. *a*] om. Oxf. *in ore*] *inira* B. *fingit et terminat*] LMO, *fingitur et terminatur* H, *f. e. terminatque* O. *atque sonos*] *quae sonos* BCR Oxf., *sonos* O. *cum*] *qui* H. *ad dentes*] Oxf. THO [Or.'s C], *addentes* B, *et ad dentes* CV, *et addentes* R [*dentes* Or.'s $A^1V^1B$]. *ad alias*] *alias* U [Or.'s B]. *plectri*] *plectro* H[G], *plerique* N. *iis*] *his* Oxf. TUBV [Or.'s X].

150 LX. *dedit*] *dederit attendite* HU [*dederit audite* G], *dederit* $V_1$. *facilis*] O Oxf., om. BHLNT. *nullo in motu*] *nulla immotu* B. *ad fingendum*] *ad* om. Oxf. UTBHILMNOCRV, *fingendumque* $V_1$. *ad scalpendum* O, *ad sculpendum* HNV, *ac sculpendum* L, *ad* om. CR, text $V_1$. *ac tibiarum*] Oxf. OM, *adtiarum* B, *ad tibiarum* HL. *admotione digitorum*] Oxf., *admotionem d.* BLHO, *ad motionem* UT, om. N, *admonitione d.* V, text $V_1$. *oblectationis*] *oblationis* B. *necessitatis*] *necessitas* U. *tegumenta*] *tegimenta* Oxf., *tegmenta* LM, *argumenta* C. *ferri*] *ferris* B. *opificum*] *opificis* HR[G], *opificibus* Walker. *possemus*] B, *possimus* Oxf. HULMOCV, text $V_1$. *muros*] om. Oxf. *domicilia*] *domicilium* Oxf. *delubra*] *salubra* L, *delubrum* Oxf. *haberemus*]
151 *habeamus* C. *operibus*] *opibus* Oxf. *id est manibus*] om. L. *efferunt*] *afferunt* CR, *ferunt* TV, text $V_1$, *sunt efferunt* Oxf. *manu quaesita*] *manu et quanta* N, *manuque sita* C. *consumantur*] *consumentur* U, *consummantur* Oxf. [Or.'s BV]. *volantibus*] BC, *uolatilibus* others. *quadripedum*] B, *quadrupedum* others [Or.'s E]. *nos iuga*] *et iuga* H[G]. *nos sagacitate*] *nos* om. B. *arborum autem consectione*] Oxf. M, *arborum autem consectionem* H, *arb. a confectionem* B, *arborumque ante confectionem* C, *arborum autem confectione* LOV, text $V_1$. *materia*] *in arteria* Oxf. *calfaciendum*] Oxf., *caleficiendum* BC, *calefaciendum* HILNVUT. *igni*] Oxf., *igne* HN. *ad*

aedificandum] O, et ad hed. B, et ad aed. C Oxf. UΥ. plurimisque] pluris- 152
misque B, plurimis UΥ. item] om. Υ. avertimus] Oxf., aduertimus H.

LXI. usque] om. Oxf. ab] ad B. finitus] fontus B. praedic- 153
taeque] ILOV, praedicataeque Oxf. BHMNCR. accipit] Oxf. Υ, accepit LNOCU,
accedit Davies. ab his Oxf. MNCRV, ab iis U, ad his B, ad HΥ Dav., om.
ILO. reliquaeque] et reliquae U. exsistit] consistit Oxf. Υ. par et
similis] parum simul H, pars similis N [Red.]. cedens] after caelestibus CΥU.
debet intellegi] int. deb. UΥ. vim] om. HΥ, eum N. aliquando] aliquanto 154
H [Or.'s P]. perorem] per ordinem N, per horam Oxf.

LXII. Principio ipse] Idem H[G]. deorum hominumque] hominum H
[G Red.]. quaeque] quoniam H [quoniam quae G]. ea] omnia HΥ
[G Or.'s P]. parata] parate Oxf. aut urbs utrorumque] at utrorumque
urbs Oxf. Lacedaemonem Atheniensium] om. B. Lacedaemoniorumque]
Lacedaemoniorumque quae Oxf. est] om. Oxf. conditas] ciuitates con-
ditas ILV, text $V_1$. esse] om. H[G]. sint] sunt MRΥ, fiunt C. sunt
in omni] sunt om. BH, hoc for omni H [G Or.'s $V^2$]. mundo deorum] deorum
mundo Oxf. rationem sollertiamque] sollertiam rationemque Oxf. dimetati] 155
Oxf. BM, dimetiti $HV_1$, demetiti UΥIV, demetati LO [Or.'s $V^1$], dimeditati sunt N.
facta esse causa] B, causa facta esse NUΥ, causa esse facta C, esse facta causa RV.
iudicandum est] iudicanda sunt LΥ. feta] fota B. quae cum] quantam 156
tamen N, quae sunt C, quae est RV. fundit] fundi LM [Or.'s V]. an]
han B. dicam] dicamus N [Red.]. quarum] quorum CU. scientia]
conscientia ILO. est et usus] esse usus H, usus est Υ.

LXIII. possent] BH, potuerunt LΥO, possunt VU Oxf. dixi] BHILNO, 157
diximus Oxf. U others. iis solis] B, solis Oxf. MRV, illis N, solis iis UO, his
solis H, solis his L. furantur] fungantur H, fruuntur $V_1$. ex iis] ex his
RV [Or.'s BE]. dicemus] dicimus Oxf. homines] om. Υ. murum]
N, murium Oxf. BILMCRV, furum H. condunt] conduntur Υ. sed con-
jugum] et conjungunt Oxf. furtim] furtum B, frumento N, after dixi C.
libere] liberam U. eas rerum copias] res eas H[G], eas copias rerum C. 158
comparatas] comparatas esse [G]HC, comparas Oxf. nisi] ni MR. et
varietas] BIL, uarietasque Oxf. HNCR, et om. MV. iucundus] iocundus BCV
Oxf. U [Or.'s CE]. gustatus] gustatur B, gustus H[G]. quin] quod N
[Red.]. ea] et U. bestiarum etiam causa] bestiarum eciam causa eciam
C, etiam bestiarum causa U. afferunt] om. Υ. cultu hom. et curat.
potuissent] hom. cur. pot. et cultu U, et cultu om. Υ. tam] tanta Υ. tamque]
est tamque ΥU. significat aliud] a. s. ΥU. hominum commoditates]
hominum om. H, commoditatem hominum C. bubus] $BMV_1$, bobus others. 159
quorum ipsa] quarum ipsa Oxf. [Or.'s V], ipsa om. quorum after declarant H[G].
ad onus] before esse UΥ. se] om. VUΥ, rest. $V_1$. extrahenda] trahenda
Ernesti, iis trahenda Moser. fissione] fossione HΥ, fixione M. aureo]
Oxf., auido MRV, text $V_1$. poetae] pote B. locuntur] C, loquuntur B.
vis nulla umquam] nullo uis umquam C. funestum] fines tum B, funestum
est C. primast] prima sunt B, prima est others. fabricarier ensem et]
Oxf. M, fabricari ferensemet B, fabricari ferro ensem et HN, fabricare e ferro
ensem et ILΥ, fabricare effero ensem et O, fabricare ensem ferre et C. gustare]

*gestare* CR [Or.'s $B^2$G (which has supersc. *al. tractare*)]. *vinctum domitumque*] om. *que* Oxf., *domitum uinctumque* C. *iuvencum*] *iumentum* B [Or.'s C]. *e bubus*] BMR, *e bobus* C, *ex bobus* V, *ex bubus* $V_1$. *ut*] *ut ex* Υ. *haberetur*] *putaretur* UΥ.

LXIV. *est*] *esset* H[G], *est si* LΥ [Or.'s $B^3$]. *mulorum*] *multorum* Oxf. *persequi*] om. HΥ [*persequar* Or.'s $B^2$], *prosequi* N. *hominum*] *hominem*
160 Oxf. *sunt*] *essent* H[G]. *quidem*] *quid* M, *quid quidem* C. *putresceret*] HILNCR, *putesceret* Oxf. BMV [Or.'s MSS], '*al. Nonius in Putidum legit ne putisceret*' marg. M. *esse*] om. Oxf. *genuit*] *generauit* H[G]. *tanta*] om. Oxf. *eae*] *ae* B, *ea* Oxf., *haec* C, *hae* U others. *quidem*] *umquam*
161 H[G]. *ratione atque*] om. H[G]. *quasdam*] *quosdam* Oxf. *putamus*] *putemus* UΥ. *venando*] *uenantes* N [Red.]. *iis*] *his* RVΥ. *exerceamur*] *eiciamur* Oxf. *et condocefactis ut elephantis*] MO, om. *ut* Oxf., *et condace factis ut el.* B, *et docefactis ut el.* [G]HL, *et cum doctae factae sunt ut elephantis* N [Red.], *ut condocefacti sunt elephantes* C [*et condocefacti sint el.* Or.'s V]. *earum*] *eorum* C [G Red.], *rerum* Oxf. *eliciamus*] N, *eligamus* Oxf. UΥO others. *percepimus*] BM, *percipimus* CHV Oxf. U, *percimus* O. *cernes*] BL, *cernere* HMNCRV Oxf. Υ, *cernens* O [Or.'s $V^1$, *cerneres* $V^2$]. *pecudum*] *pecudumque* Υ. *pastus*] *partus* Oxf. *maritimos*] *maritimi* HΥ, before *cursus* C.

162 LXV. *vestrum*] *nostrum* R Oxf. *fortasse*] om. V, before *arripiet* Edd. before Davies except Victorius. *irridet*] *arridet* Oxf. *praedictionem*] L, *predicationem* Oxf. BHMV, text $V_1$, *praedicionem* O. *confirmare*] *confirmat* Oxf. *providentia*] M Oxf., *prudentia* BHOL. *consuli rebus*] *consultibus* Oxf. *cum—tum*] Oxf. M, *tamen—tamen* C, *tum—tum* [Or.'s C] BHOΥV,
163 text $V_1$. *in publicis*] HLON, *in* om. Oxf. B others. *haruspices*] *auruspices* BV [*haur.* Or.'s C], *aruspices* CR. *provident*] *praeuident* V [Manut. Bouh.]. *multa oraclis declarantur*] om. H. For *oraclis*, *oraculis* MCRV Oxf. *somniis*] *somnis* B. *multae*] *multa* B. *ex*] R, om. Υ others. *igitur*] *et* Υ. *vis sive ars*] *ars siue uis* B [Or.'s C]. *scientiam*] *scientia* B. *alii cuiquam*] HNR, *alicui quam* B, *ab aliquo quam* ILOΥ, *ab aliquo alicui quam* U, *ab alio alicui quam* Oxf. MV, *alio alicui quam* C. *si*] om. HMR. *a*
164 *dis—singulis*] om. Oxf. *coniuncta*] *iuncta* B [Or.'s C]. *debebant*] HΥ, *debeant* LO, *debebunt* others. *deducere*] *ducere* Oxf. *in ora*] *mora* Oxf.

LXVI. *ab*] *ad* Oxf. *consulere*] *colere* LΥ. *eas*] *has* Z Oxf. U.
165 *his*] *iis* R. *terras*] *terras incolunt* U. *colunt*] om. U. *consulunt iis*] NC, *illis consulunt* H, *consulunt illis* URV$_1$, *iis* om. Υ Oxf. BILMOV. *partes*] *partis* L, *partem* C [G Red.]. *Asiam*] *Asiamque et* H[G]. *ut Romam—diligunt*] om. IΥ. *Spartam*] *sparttam* B, *spartham* Oxf. *Pyrrhi*] *in Pyrrhi* N [Red.], *pirri* C Oxf. *Coruncanium*] *Corruncanum* RV, *Coruncanum* Oxf. *Lutatium*] *Lutacium* CRV [Or.'s AB]. *secundo*] om. Υ. *Paullum*]
166 *Paulum* BCV Oxf. *patrumve*] Oxf., *patrum* ΥV$_1$. *maximeque*] Oxf. BHO, *maxime* MRV, text $V_1$. *Homerum*] *Horatium* Oxf. *adiungeret*] Oxf. HLM, *adiungerent* UΥBOV$_1$, *ascriberet uel adiungeret* before *discriminum* C. *quales*] *quale* B. *ab iis*] *et ab hiis* C, *ab his* U others. *extis*] NR, *in*

*cetis* **B**, *in extis* **Oxf. UTHMOCV**, *inertis* **IL**, *etiam extis* Moser. *admonemur*] *admonentur* **RVU**. *diuturnus*] *divinus* **T**. *efficeret*] *afficeret* **B**. *id*] 167
Heindorf, om. **Z Oxf.** *refellendum*] *refellendus* **IL**. *cui quid*] *cum quid* **MR**, *quid quid* **C**. *prosperae*] **BHO**, *prospere* **ILMN Oxf. U**. *semper*] **OT**, *semper eueniunt* **N**, *eueniunt semper* **CRV Oxf. U**. *philosophiae*] *philosophorum* **T** [**G** Red. Mars. **Asc.**].

LXVII. *civem*] *putes* adds **V** [Or.'s **P**]. *utramque partem*] *utraque* 168
*parte* **B**. *vobis*] **BOL**, *nobis* **H**, *quouis* **Oxf. UMC**, *cuiuis* $V_1$. *disputare*] **BHOL**, *disputari* **M Oxf.** [Or.'s $V^2$]. *sumas*] *assumas* **N** [Red.]. *tibi*] **Oxf.**, om. **MR**. *rhetoricis*] *rethoricis* **CV Oxf.** *potius huc*] *huc potius* Edd. before Davies except Vict. *Mala*] *Multum* **H**[**G**]. *et impia*] *et* om. **C**[**G**]. *fit*] om. **IL**, *sit* **T**. *sive*] om. **H**.

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